



**Government of Khyber Pakhtunkhwa Health Department  
Directorate General Drugs Control &  
Pharmacy Services  
Khyber Pakhtunkhwa Peshawar**

**BID SOLICITATION DOCUMENTS (BSD) FOR NATIONAL COMPETITIVE  
BIDDING (NCB) PAKISTAN, FOR PROCUREMENT OF EQUIPMENT /  
INSTRUMENTS / GLASSWARES / INFORMATION, COMMUNICATION &  
TECHNOLOGY (ICT) EQUIPMENT AND OTHERS FOR ESTABLISHMENT  
OF PROVINCIAL FOOD AND DRUGS TESTING LABORATORIES  
PESHAWAR**

**OCTOBER 2021  
FINANCIAL YEAR 2021-22**

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## **Part One - Section I**

- Instructions to Bidders (ITB)
- General Conditions of Contract (GCC)

## **PREFACE**

These Bidding Documents have been prepared for use by Procuring Entities and their implementing agencies in the procurement of Goods through National Competitive Bidding (NCBs) under Rule (06) KPPRA Rules 2014. These SBDs are prepared for Rate Contract under Government of Khyber Pakhtunkhwa District Govt Rules of Business 2015, 2nd Schedule Rule 3 (2), and Serial No.11 (Health) Sub-rule xiii for procurement of Equipment and will result in agreement with the successful bidder.

In order to simplify the preparation of bidding documents for all procurement, the Bidding Documents are grouped in two parts based on provisions, which would remain the same for all the related procurements and that which are specific for each procurement Provisions, which are intended to be used un-changed are in **Part one**, which includes

**Section I, Instructions to Bidders (ITB), and**

**Section II, General Conditions of Contract (GCC).**

Data and provisions specific to each procurement and contract are included in **Part Two** which is further organized into six sections. **Sections I, II, III, IV, and V**, respectively contain Invitation for Bids; Bid Data Sheet; Special Conditions of Contract; Schedule of Requirements; Technical Specifications; and the forms to be used, while **Section VI** is about **Sample Forms**.

This is Part one, which is fixed and contains provisions, which are to be used, unchanged. Each section is prepared with notes intended only as information for the Procuring agency or the person drafting the bidding documents. They shall not be included in the final documents.

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## INSTRUCTIONS TO BIDDERS

### A. Introduction

<b>1. Source of Funds</b>	1.1	The Procuring Entity has received Provincial Government funds from the source(s) indicated in the bidding data in various currencies towards the cost of the project /schemes specified in the bidding data and it is intended that part of the proceeds of this loan/grant/funds/ will be applied to eligible payments under the contract for which these bidding documents are issued.
	1.2	The funds referred to above in addition shall be “Public Fund” which according to 2 (1) (I) of KPP Rules 2014 means: (i) Provincial Consolidated Fund; (ii) foreign assistance; (iii) all moneys standing in the Public Account; and (iv) Funds of enterprises wholly or partly owned or managed or controlled by Government.
	1.3	Payment by the Fund will be made only at the request of the Procuring Entity and upon approval by the Government of Khyber Pakhtunkhwa, and in case of a project will be subject in all respect to the terms and conditions of the agreement. The Project Agreement prohibits a withdrawal from the allocated fund account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Federal Government/ Khyber Pakhtunkhwa Government, is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Procuring Entity shall derive any rights from the Project Agreement or have any claim to the allocated fund proceeds.
<b>2. Eligible Bidders</b>	2.1	This Invitation for Bids is open to all eligible bidders/ Original Manufacturer/ Authorized 3S Dealer of the Original manufacturer. Proprietorship of a well-established Authorized dealer of the original manufacturer / 3S automobile dealership is must
	2.2	Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Procuring Entity to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation for Bids.
	2.3	Government-owned enterprises in the Province of Khyber Pakhtunkhwa may participate only if they are legally and financially autonomous, if they operate under commercial law, and if they are not a dependent Entity of the Government of Khyber Pakhtunkhwa.
	2.4	Bidders shall not be eligible to bid if they are under a declaration of ineligibility for corrupt and fraudulent practices issued by any government organization in accordance with the Rule 44(I) KPP Rules 2014.



<b>3. Eligible Goods and Services</b>	3.1	All goods and related services to be supplied under the contract shall have their origin in eligible source countries of the world with whom the Islamic Republic of Pakistan has commercial relations and its Bidding Documents and all expenditures made under the contract will be limited to such goods and services.
	3.2	For purposes of this clause, “origin” means the place where the goods are mined, grown, or produced, or the place from which the related services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially-recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.
	3.3	The origin of goods and services is distinct from the nationality of the Bidder.
<b>4. Cost of Bidding</b>	4.1	The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Procuring Entity named in the Bid Data Sheet, hereinafter referred to as “the Procuring Entity,” will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
<b>B. The Bidding Documents</b>		
<b>5. Content of Bidding Documents</b>	5.1	The bidding documents include: <ul style="list-style-type: none"> <li>a) Instructions to Bidders (ITB)</li> <li>b) Bid Data Sheet (BDS)</li> <li>c) General Conditions of Contract (GCC)</li> <li>d) Special Conditions of Contract (SCC)</li> <li>e) Schedule of Requirements (SOR)</li> <li>f) Technical Specifications</li> <li>g) Bid Form and Price Schedules</li> <li>h) Bid Security Form</li> <li>i) Contract Form</li> <li>j) Performance Security Form</li> <li>k) Manufacturer’s Authorization Form</li> </ul>
	5.2	The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the Bidder’s risk and may result in the rejection of its bid.
<b>6. Clarification of Bidding Documents</b>	6.1	An interested Bidder requiring any clarification of the bidding documents may notify the Procuring Entity in writing. The Bidding Procuring Entity will respond in writing to any request for Document's clarification of the bidding documents which it receives no later than three working days prior to the deadline for the submission of bids prescribed in the Bid Data Sheet. Written copies of the Procuring Entity's response (including an explanation of the

		query but without identifying the source of inquiry) will be sent to all interested bidders that have received the bidding documents.
<b>7. Amendment of Bidding Documents</b>	7.1	At any time prior to the deadline for submission of bids, the Procuring Entity, for any reason, whether at its own initiative or in response to a clarification requested by an interested Bidder, may modify the bidding documents by amendment.
	7.2	All interested bidders that have received the bidding documents will be notified of the amendment in writing, and will be binding on them.
	7.3	In order to allow interested bidders reasonable time in which to take the amendment into account in preparing their bids, the Procuring Entity, at its discretion, may extend the deadline for the submission of bids.
		<b>C. Preparation of Bids</b>
<b>8. Language of Bid</b>	8.1	The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Procuring Entity shall be written in the language specified in the Bid Data Sheet. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the Bid Data Sheet, in which case, for purposes of interpretation of the Bid, the translation shall govern.
<b>9. Documents Comprising the Bid</b>	9.1	<p>The bid prepared by the Bidder shall comprise the following components:</p> <ul style="list-style-type: none"> <li>a) A Bid Form and a Price Schedule completed in accordance with ITB Clauses 10, 11, and 12.</li> <li>b) Documentary evidence established in accordance with ITB Clause 13 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;</li> <li>c) Documentary evidence established in accordance with ITB Clause 14 that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the bidding documents; and</li> <li>d) bid security furnished in accordance with ITB Clause 15.</li> </ul>
<b>10. Bid Form</b>	10.1	The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.
<b>11. Bid Prices</b>	11.1	The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total bid price of the goods it proposes to supply under the contract.
	11.2	Prices indicated on the Price Schedule shall be delivered duty paid (DDP) prices. The price of other (incidental) services, if any, listed in the Bid Data Sheet will be entered separately.

	11.3	The Bidder's separation of price components in accordance with ITB Clause 11.2 above will be solely for the purpose of facilitating the comparison of bids by the Procuring Entity and will not in any way limit the Procuring Entity's right to contract on any of the terms offered.
	11.4	Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account, unless otherwise specified in the Bid Data Sheet. A bid submitted with an adjustable price quotation will be treated as nonresponsive and will be rejected, pursuant to ITB Clause 24. If, however, in accordance with the Bid Data Sheet, prices quoted by the Bidder shall be subject to adjustment during the performance of the contract, a bid submitted with a fixed price quotation will not be rejected, but the price adjustment would be treated as zero.
<b>12. Bid Currencies</b>	12.1	Prices shall be quoted in Pak Rupees unless otherwise specified in the Bid Data Sheet.
<b>13. Documents Establishing Bidder's Eligibility and Qualification</b>	13.1	Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted.
	13.2	The documentary evidence of the Bidder's eligibility to bid shall establish to the Procuring Entity's satisfaction that the Bidder, at the time of submission of its bid, is from an eligible country as defined under ITB Clause 3.
	13.3	<p>The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Procuring Entity's satisfaction:</p> <ul style="list-style-type: none"> <li>a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer or producer to supply the goods in the Procuring Entity's country;</li> <li>b) that the Bidder has the financial, technical, and production capability necessary to perform the contract;</li> <li>c) that, in the case of a Bidder not doing business within the Procuring Entity's country, the Bidder is or will be (if awarded the contract) represented by an Agent in that country equipped, and able to carry out the Supplier's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and</li> <li>d) that the Bidder meets the qualification criteria listed in the Bid Data Sheet.</li> </ul>
<b>14. Documents</b>	14.1	Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid,

<b>Establishing Goods' Eligibility and Conformity to Bidding Documents</b>		documents establishing the eligibility and conformity to the bidding documents of all goods and services which the Bidder proposes to supply under the contract.
	14.2	The documentary evidence of the eligibility of the goods and services shall consist of a statement in the Price Schedule of the country of origin of the goods and services offered which shall be confirmed by a certificate of origin issued at the time of shipment.
	14.3	<p>The documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings, and data, and shall consist of:</p> <ul style="list-style-type: none"> <li>a) a detailed description of the essential technical and performance characteristics of the goods;</li> <li>b) a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period to be specified in the Bid Data Sheet, following commencement of the use of the goods by the Procuring Entity; and</li> <li>c) an item-by-item commentary on the Procuring Entity's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications.</li> </ul>
	14.4	For purposes of the commentary to be furnished pursuant to ITB Clause 14.3(c) above, the Bidder shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Procuring Entity in its Technical Specifications, are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names, and/or catalogue numbers in its bid, provided that it demonstrates to the Procuring Entity's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications
<b>15. Bid Security</b>	15.1	Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, a bid security in the amount specified in the Bid Data Sheet. [The bid security shall be submitted from the account of the firm/bidder/Bidder who submits the bid] <sup>1</sup>
	15.2	The bid security is required to protect the Procuring Entity against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause 15.7.
	15.3	The bid security shall be in Pak. Rupees and shall be in one of the

		<p>following forms:</p> <p>The Bidder shall furnish, as part of its bid, a Bid Security/Earnest Money equivalent to of the bid price @2% in Shape of CDR from the account of bidder /firm who submits the bid in the name of "Project Director Directorate General Drug Control &amp; Pharmacy Services". A pay order will not be acceptable.</p>
	15.4	Any bid not secured in accordance with ITB Clauses 15.1 and 15.3 will be rejected by the Procuring Entity as non-responsive, pursuant to ITB Clause 24.
	15.5	Unsuccessful bidders' bid security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity prescribed by the Procuring Entity pursuant to ITB Clause 16.
	15.6	The successful Bidder's bid security will be discharged upon the Bidder signing the contract, pursuant to ITB Clause 32, and furnishing the performance security, pursuant to ITB Clause 33.
	15.7	<p>The bid security may be forfeited:</p> <ul style="list-style-type: none"> <li>a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or</li> <li>b) in the case of a successful Bidder, if the Bidder fails: <ul style="list-style-type: none"> <li>i. to sign the contract in accordance with ITB Clause 32;</li> <li>or</li> <li>ii. to furnish performance security in accordance with ITB Clause 33.</li> </ul> </li> </ul>
<b>16. Period of Validity of Bids</b>	16.1	Bids shall remain valid for the period specified in the Bid Data Sheet after the date of bid opening prescribed by the Procuring Entity, pursuant to ITB Clause 19. A bid valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.
	16.2	In exceptional circumstances, the Procuring Entity may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security provided under ITB Clause 15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid, except as provided in the bidding document.
<b>17. Format and Signing of Bid</b>	17.1	The Bidder shall prepare an original and the number of copies of the bid indicated in the Bid Data Sheet, clearly marking each <b>"ORIGINAL BID"</b> and <b>"COPY OF BID"</b> as appropriate. In the event of any discrepancy between them, the original shall govern.
	17.2	The original and the copy or copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. All pages of the bid shall be initialed by the person or persons signing the bid.
	17.3	Any interlineations, erasures, or overwriting shall be valid only if they are initialed by the person or persons signing the bid.

	17.4	The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract.
		<b>D. Submission of Bids</b>
<b>18. Sealing and Marking of Bids</b>	18.1	The Bidder shall seal the original and each copy of the bid in separate envelopes, duly marking the envelopes as “ORIGINAL” and “COPY.” The envelopes shall then be sealed in an outer envelope.
	18.2	The inner and outer envelopes shall: <ul style="list-style-type: none"> <li>a. be addressed to the Procuring Entity at the address given in the Bid Data Sheet; and</li> <li>b. bear the Project name indicated in the Bid Data Sheet, the Invitation for Bids (IFB) title and number indicated in the Bid Data Sheet, and a statement: “DO NOT OPEN BEFORE,” to be completed with the time and the date specified in the Bid Data Sheet, pursuant to ITB Clause 2.2.</li> </ul>
	18.3	The inner envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared “late”.
	18.4	If the outer envelope is not sealed and marked as required by ITB Clause 18.2, the Procuring Entity will assume no responsibility for the bid’s misplacement or premature opening.
<b>19. Deadline for Submission of Bids</b>	19.1	Bids must be received by the Procuring Entity at the address specified under ITB Clause 18.2 no later than the time and date specified in the Bid Data Sheet.
	19.2	The Procuring Entity may, at its discretion, extend this deadline for the submission of bids by amending the bidding documents in accordance with ITB Clause 7, in which case all rights and obligations of the Procuring Entity and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.
<b>20. Late Bids</b>	20.1	Any bid received by the Procuring Entity after the deadline for submission of bids prescribed by the Procuring Entity pursuant to ITB Clause 19 will be rejected and returned unopened to the Bidder.
<b>21. Modification and Withdrawal of Bids</b>	21.1	The Bidder may modify or withdraw its bid after the bid’s submission, provided that written notice of the modification, including substitution or withdrawal of the bids, is received by the Procuring Entity prior to the deadline prescribed for submission of bids.
	21.2	The Bidder’s modification or withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of ITB Clause 18. by a signed confirmation copy, postmarked no later than the deadline for submission of bids.
	21.3	No bid may be modified after the deadline for submission of bids.

	21.4	No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security, pursuant to the ITB Clause 15.7.
		<b>E. Opening and Evaluation of Bids</b>
<b>22. Opening of Bids by the Procuring Entity</b>	22.1	The Procuring Entity will open all bids in the presence of bidders' representatives who choose to attend, at the time, on the date, and at the place specified in the Bid Data Sheet. The bidders' representatives who are present shall sign a register evidencing their attendance.
	22.2	The bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presence or absence of requisite bid security and such other details as the Procuring Entity, at its discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the Bidder pursuant to ITB Clause 20.
	22.3	Bids (and modifications sent pursuant to ITB Clause 21.2) that are not opened and read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances. Withdrawn bids will be returned unopened to the bidders.
	22.4	The Procuring Entity will prepare minutes of the bid opening.
<b>23. Clarification of Bids</b>	23.1	During evaluation of the bids, the Procuring Entity may, at its discretion, ask the Bidder for a clarification of its bid. The Bids request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.
<b>24. Preliminary Examination</b>	24.1	The Procuring Entity will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
	24.2	Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If the Bidder does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail.
	24.3	The Procuring Entity may waive any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

<b>25. Evaluation and Comparison of Bids</b>	24.4	Prior to the detailed evaluation, pursuant to ITB Clause 25 the Procuring Entity will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Deviations from, or objections or reservations to critical provisions, such as those concerning Bid Security (ITB Clause 15), Applicable Law (GCC Clause 30), and Taxes and Duties (GCC Clause 32), will be deemed to be a material deviation. The Procuring Entity's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
	24.5	If a bid is not substantially responsive, it will be rejected by the Procuring Entity and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
	25.1	The Procuring Entity will evaluate and compare the bids which have been determined to be substantially responsive, pursuant to ITB Clause 24.
	25.2	The Procuring Entity's evaluation of a bid will be on delivered duty paid (DDP) price inclusive of prevailing duties and will exclude any allowance for price adjustment during the period of execution of the contract, if provided in the bid.
	25.3	<p>The Procuring Entity's evaluation of a bid will take into account, in addition to the bid price quoted in accordance with ITB Clause 11.2, one or more of the following factors as specified in the Bid Data Sheet, and quantified in ITB Clause 25.4:</p> <ul style="list-style-type: none"> <li>a. incidental costs</li> <li>b. delivery schedule offered in the bid;</li> <li>c. deviations in payment schedule from that specified in the Special Conditions of Contract;</li> <li>d. the cost of components, mandatory spare parts, and service;</li> <li>e. the availability of spare parts and after-sales services for the equipment offered in the bid for Procuring Entity;</li> <li>f. the projected operating and maintenance costs during the life of the equipment; the performance and productivity of the equipment offered; and/or</li> <li>g. other specific criteria indicated in the Bid Data Sheet and/or in the Technical Specifications.</li> </ul>
	25.4	<p>For factors retained in the Bid Data Sheet pursuant to ITB 25.3, one or more of the following quantification methods will be applied, as detailed in the Bid Data Sheet:</p> <ul style="list-style-type: none"> <li>a. Incidental costs provided by the bidder will be added by Procuring Entity to the delivered duty paid (DDP) price at the final destination.</li> <li>b. Delivery schedule. <ul style="list-style-type: none"> <li>i. The Procuring Entity requires that the goods under the</li> </ul> </li> </ul>



Invitation for Bids shall be delivered at the time specified in the Schedule of Requirements which will be treated as the base, a delivery “adjustment” will be calculated for bids by applying a percentage, specified in the Bid Data Sheet, of the DDP price for each week of delay beyond the base, and this will be added to the bid price for evaluation. No credit shall be given to early delivery.

or

- ii. The goods covered under this invitation are required to be delivered (shipped) within an acceptable range of weeks specified in the Schedule of Requirement. No credit will be given to earlier deliveries, and bids offering delivery beyond this range will be treated as non-responsive. Within this acceptable range, an adjustment per week, as specified in the Bid Data Sheet, will be added for evaluation to the bid price of bids offering deliveries later than the earliest delivery period specified in the Schedule of Requirements.

or

- iii. The goods covered under this invitation are required to be delivered in partial shipments, as specified in the Schedule of Requirements. Bids offering deliveries earlier or later than the specified deliveries will be adjusted in the evaluation by adding to the bid price a factor equal to a percentage, specified in the Bid Data Sheet, of DDP price per week of variation from the specified delivery schedule.

c. Deviation in payment schedule:

- i. Bidders shall state their bid price for the payment schedule outlined in the SCC. Bids will be evaluated on the basis of this base price. Bidders are, however, permitted to state an alternative payment schedule and indicate the reduction in bid price they wish to offer for such alternative payment schedule. The Procuring Entity may consider the alternative payment schedule offered by the selected Bidder.

or

- ii. The SCC stipulates the payment schedule offered by the Procuring Entity. If a bid deviates from the schedule and if such deviation is considered acceptable to the Procuring Entity, the bid will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the bid as compared with those stipulated in this invitation, at the rate per annum specified in the Bid Data Sheet.

d. Cost of spare parts.

- i. The list of items and quantities of major assemblies, components, and selected spare parts, likely to be required during the initial period of operation specified in the Bid Data Sheet, is annexed to the Technical Specifications. The total cost of these items, at the unit prices quoted in each bid, will be added to the bid price.

or

- ii. The Procuring Entity will draw up a list of high- usage and high-value items of components and spare parts, along with estimated quantities of usage in the initial period of operation specified in the Bid Data Sheet. The total cost of these items and quantities will be computed from spare parts unit prices submitted by the Bidder and added to the bid price.

or

- iii. The Procuring Entity will estimate the cost of spare parts usage in the initial period of operation specified in the Bid Data Sheet, based on information furnished by each Bidder, as well as on past experience of the Procuring Entity or other procuring agencies in similar situations. Such costs shall be added to the bid price for evaluation.

e. Spare parts and after sales service facilities in the Procuring Entity's country.

The cost to the Procuring Entity of establishing the minimum service facilities and parts inventories, as outlined in the Bid Data Sheet or elsewhere in the bidding documents, if quoted separately, shall be added to the bid price.

f. Operating and maintenance costs.

Since the operating and maintenance costs of the goods under procurement form a major part of the life cycle cost of the equipment, these costs will be evaluated in accordance with the criteria specified in the Bid Data Sheet or in the Technical Specifications.

g. Performance and productivity of the equipment.

- i. Bidders shall state the guaranteed performance or efficiency in response to the Technical Specification. For each drop in the performance or efficiency below the norm of 100, an adjustment for an amount specified in the Bid Data Sheet will be added to the bid price, representing

		<p>the capitalized cost of additional operating costs over the life of the plant, using the methodology specified in the Bid Data Sheet or in the Technical Specifications.</p> <p>or</p> <p>ii. Goods offered shall have a minimum productivity specified under the relevant provision in the Technical Specifications to be considered responsive. Evaluation shall be based on the cost per unit of the actual productivity of goods offered in the bid, and adjustment will be added to the bid price using the methodology specified in the Bid Data Sheet or in the Technical Specifications.</p> <p>h. Specific additional criteria indicated in the Bid Data Sheet and/or in the Technical Specifications.</p>												
Alternative	25.4	25.4 Merit Point System: The following merit point system for weighing evaluation factors can be applied if none of the evaluation methods listed in 25.4 above has been retained in the Bid Data Sheet. The number of points allocated to each factor shall be specified in the Bid Data Sheet												
		[In the Bid Data Sheet, choose from the range of]												
		<table><tr><td>Evaluated price of the goods</td><td>60 to 90</td></tr><tr><td>Cost of common list spare parts</td><td>0 to 20</td></tr><tr><td>Technical features, and maintenance and operating costs</td><td>0 to 20</td></tr><tr><td>Availability of service and spare parts</td><td>0 to 20</td></tr><tr><td>Standardization</td><td>0 to 20</td></tr><tr><td>Total</td><td>100</td></tr></table>	Evaluated price of the goods	60 to 90	Cost of common list spare parts	0 to 20	Technical features, and maintenance and operating costs	0 to 20	Availability of service and spare parts	0 to 20	Standardization	0 to 20	Total	100
		Evaluated price of the goods	60 to 90											
		Cost of common list spare parts	0 to 20											
		Technical features, and maintenance and operating costs	0 to 20											
		Availability of service and spare parts	0 to 20											
		Standardization	0 to 20											
		Total	100											
The bid scoring the highest number of points will be deemed to be the Highest-Ranking fair bid.														
26. Contacting the Procuring Entity	26.1	Subject to ITB Clause 23, no Bidder shall contact the Procuring Entity on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Procuring Entity, it should do so in writing.												
	26.2	Any effort by a Bidder to influence the Procuring Entity in its decisions on bid evaluation, bid comparison, or contract award may result in the rejection of the Bidder’s bid.												
		F. Award of Contract												
27. post-qualification	27.1	In the absence of prequalification, the Procuring Entity will determine to its satisfaction whether the Bidder that is selected as having submitted the Highest-ranking fair bid is qualified to perform the												

		contract satisfactorily, in accordance with the criteria listed in ITB Clause 13.3.
	27.2	The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 13.3, as well as such other information as the Procuring Entity deems necessary and appropriate.
	27.3	An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Procuring Entity will proceed to the next highest ranking fair bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.
<b>28. Award Criteria</b>	28.1	Subject to ITB Clause 30, the Procuring Entity will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the Highest-ranking fair bid as defined in Section-2(1)(c)(i) of KPPRA Act 2012, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.
<b>29. Procuring Entity's Right to Vary Quantities at Time of Award</b>	29.1	The Procuring Entity reserves the right at the time of contract award to increase or decrease, by the percentage indicated in the Bid Data Sheet, the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
<b>30. Procuring Entity's Right to Accept any Bid and to Reject any or All Bids</b>	30.1	The Procuring Entity reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Procuring Entity's action.
<b>31. Notification of Award</b>	31.1	Prior to the expiration of the period of bid validity, the Procuring Entity will notify the successful Bidder in writing by registered letter or by cable, to be confirmed in writing by registered letter, that its bid has been accepted.
	31.2	The notification of award will constitute the formation of the Contract.
	31.3	Upon the successful Bidder's furnishing of the performance security pursuant to ITB Clause 33, the Procuring Entity will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to ITB Clause 15.
<b>32. Signing of Contract</b>	32.1	At the same time as the Procuring Entity notifies the successful Bidder that its bid has been accepted, the Procuring Entity will send the Bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties.
	32.2	Within thirty (10) days of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the

		Procuring Entity.
<b>33 Performance Security</b>	33.1	Within twenty (15) days of the receipt of notification of award from the Procuring Entity, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the bidding documents, or in another form acceptable to the Procuring Entity.
	33.2	Failure of the successful Bidder to comply with the requirement of ITB Clause 32 or ITB Clause 33.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity may make the award to the next Highest ranking fair Bid or call for new bids.
<b>34. Corrupt or Fraudulent Practices</b>	34.1	<p>The Government of Khyber Pakhtunkhwa requires that Procuring Entity's (including beneficiaries of donor agencies' loans), as well as Bidders/Suppliers/Bidders under Government-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the KPPRA, in accordance with the Khyber Pakhtunkhwa Public Procurement Act, 2012 and Rules made thereunder:</p> <ul style="list-style-type: none"> <li>a. defines, for the purposes of this provision, the terms set forth below as follows: <ul style="list-style-type: none"> <li>i. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and</li> <li>ii. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition;</li> </ul> </li> <li>b. will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;</li> <li>c. will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a Government-financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government-financed contract.</li> </ul>
	34.2	Furthermore, Bidders shall be aware of the provision stated in sub-

		clause 5.4 and sub-clause 24.1 of the General Conditions of Contract.
<b>35. Integrity Pact</b>	35.1	The Bidder shall sign and stamp the Integrity Pact provided at Form - 7 to Bid in the Bidding Document for all Provincial Government procurement contracts exceeding Rupees ten million. Failure to such Integrity Pact shall make the bidder non-responsive.

## **Part One - Section II (General Conditions of Contract)**

### **Notes on the General Conditions of Contract**

The General Conditions of Contract in Part One Section II, read in conjunction with the Special Conditions of Contract in Part Two Section-III and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

The General Conditions of Contract herein shall not be altered. Any changes and complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract in Part Two Section III.

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## GENERAL CONDITIONS OF CONTRACT

<b>I. Definitions</b>	I.1	<p>In this Contract, the following terms shall be interpreted as indicated:</p> <ul style="list-style-type: none"> <li>a. “The Contract” means the agreement entered into between the Procuring Entity and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.</li> <li>b. “The Contract Price” means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.</li> <li>c. “The Goods” means all of the equipment, machinery, and/or other materials which the Supplier is required to supply to the Procuring Entity under the Contract.</li> <li>d. “The Services” means those services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Supplier covered under the Contract.</li> <li>e. “GCC” means the General Conditions of Contract contained in this section.</li> <li>f. “SCC” means the Special Conditions of Contract.</li> <li>g. “The Procuring Entity” means the organization purchasing the Goods, as named in SCC.</li> <li>h. “The Procuring Entity's country” is the country named in SCC.</li> <li>i. “The Supplier” means the individual or firm supplying the Goods and Services under this Contract.</li> <li>j. “The Project Site,” where applicable, means the place or places named in SCC.</li> <li>k. “Day” means calendar day.</li> </ul>
<b>2. Application</b>	2.1	These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.
<b>3. Country of Origin</b>	3.1	All Goods and Services supplied under the Contract shall have their origin in the countries and territories eligible under the rules and further elaborated in the SCC.
	3.2	For purposes of this Clause, “origin” means the place where

		the Goods were mined, grown, or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
	3.3	The origin of Goods and Services is distinct from the nationality of the Supplier.
<b>4. Standards</b>	4.1	The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin. Such standards shall be the latest issued by the concerned institution.
<b>5. Use of Contract Documents and Information; Inspection and Audit by the Government</b>	5.1	The Supplier shall not, without the Procuring Entity's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Procuring Entity in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
	5.2	The Supplier shall not, without the Procuring Entity's prior written consent, make use of any document or information enumerated in GCC Clause 5.1 except for purposes of performing the Contract.
	5.3	Any document, other than the Contract itself, enumerated in GCC Clause 5.1 shall remain the property of the Procuring Entity and shall be returned (all copies) to the Procuring Entity on completion of the Supplier's performance under the Contract if so, required by the Procuring Entity.
	5.4	The Supplier shall permit the Procuring Entity to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the procuring Entity, if so required.
<b>6. Patent Rights</b>	6.1	The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in the Procuring Entity's country.
<b>7. Performance Security</b>	7.1	Within twenty (20) days of receipt of the notification of Contract award, the successful Bidder shall furnish to the Procuring Entity the performance security in the amount specified in SCC.

	7.2	The proceeds of the performance security shall be payable to the Procuring Entity as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
	7.3	<p>The performance security shall be denominated in the currency of the Contract acceptable to the Procuring Entity and shall be in one of the following forms:</p> <ul style="list-style-type: none"> <li>a. a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the Procuring Entity's country, in the form provided in the bidding documents or another form acceptable to the Procuring Entity; or</li> <li>b. a cashier's or certified check.</li> </ul>
	7.4	The performance security will be discharged by the Procuring Entity and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in SCC.
<b>8. Inspections and Tests</b>	8.1	The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Procuring Entity. SCC and the Technical Specifications specifies inspections and tests the Procuring Entity requires and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.
	8.2	The inspections and tests may be conducted on the premises of the Supplier or, at point of delivery, and/or at the Goods' final destination. If conducted on the premises of the Supplier, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Procuring Entity.
	8.3	Should any inspected or tested Goods fail to conform to the Specifications, the Procuring Entity may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Procuring Entity.
	8.4	The Procuring Entity's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival in the Procuring Entity's country shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Procuring Entity or its representative prior to the goods' shipment from the country of origin.

	8.5	Nothing in GCC Clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.
<b>9. Packing</b>	9.1	The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
	9.2	The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the Procuring Entity.
<b>10. Delivery and Documents</b>	10.1	Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping and/or other documents to be furnished by the Supplier are specified in SCC.
	10.2	Documents to be submitted by the Supplier are specified in SCC.
<b>11. Insurance</b>	11.1	The Goods supplied under the Contract shall be delivered duty paid (DDP) under which risk is transferred to the buyer after having been delivered, hence insurance coverage is sellers' responsibility.
<b>12. Transportation</b>	12.1	The Supplier is required under the Contract to transport the Goods to a specified place of destination within the Procuring Entity's country, transport to such place of destination in the Procuring Entity's country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.
<b>13. Incidental Services</b>	13.1	<p>The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:</p> <ul style="list-style-type: none"> <li>a. performance or supervision of on-site assembly and/or start-up of the supplied Goods;</li> <li>b. furnishing of tools required for assembly and / or maintenance of the supplied Goods;</li> <li>c. furnishing of a detailed operations and maintenance</li> </ul>

		<p>manual for each appropriate unit of the supplied Goods;</p> <p>d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and</p> <p>e. training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.</p>
	13.2	Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged for other parties by the Supplier for similar services.
<b>14. Spare Parts</b>	14.1	<p>As specified in SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:</p> <p>a. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and</p> <p>b. in the event of termination of production of the spare parts:</p> <p>h. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements;</p> <p>ii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested.</p>
<b>15. Warranty</b>	15.1	The Supplier warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Procuring Entity's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.

	15.2	This warranty shall remain valid for such months and years as specified in Special Conditions of Contract months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract.
	15.3	The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty.
	15.4	Upon receipt of such notice, the Supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof, without costs to the Procuring Entity.
	15.5	If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, within a reasonable period, the Procuring Entity may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Procuring Entity may have against the Supplier under the Contract.
<b>16. Payment</b>	16.1	The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC.
	16.2	The Supplier's request(s) for payment shall be made to the Procuring Entity in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and by documents submitted pursuant to GCC Clause 10, and upon fulfillment of other obligations stipulated in the Contract.
	16.3	Payments shall be made promptly by the Procuring Entity, but in no case later than sixty (60) days after submission of an invoice or claim by the Supplier.
	16.4	The currency of payment is Pak. Rupees.
<b>17. Prices</b>	17.1	Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in SCC or in the Procuring Entity's request for bid validity extension, as the case may be.
<b>18. Change Orders</b>	18.1	<p>The Procuring Entity may at any time, by a written order given to the Supplier pursuant to GCC Clause 31, make changes within the general scope of the Contract in any one or more of the following:</p> <ul style="list-style-type: none"> <li>a. drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Procuring Entity;</li> </ul>

		<p>b. the method of shipment or packing;</p> <p>c. the place of delivery; and/or</p> <p>d. the Services to be provided by the Supplier.</p>
	18.2	If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Procuring Entity's change order.
<b>19. Contract Amendments</b>	19.1	Subject to GCC Clause 18, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
<b>20. Assignment</b>	20.1	The Supplier shall not assign, in whole or in part, its obligations to perform under this Contract, except with the Procuring Entity's prior written consent.
<b>21. Subcontracts</b>	21.1	The Supplier shall notify the Procuring Entity in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.
	21.2	Subcontracts must comply with the provisions of GCC Clause 3.
<b>22. Delays in the Supplier's Performance</b>	22.1	Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Procuring Entity in the Schedule of Requirements.
	22.2	If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Procuring Entity in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Procuring Entity shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.
	22.3	Except as provided under GCC Clause 25, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 23, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of liquidated damages.

<b>23. Liquidated Damages</b>	2.3.1	<p>Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring Entity shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Procuring Entity may consider termination of the Contract pursuant to GCC Clause 24.</p>
<b>24. Termination for Default</b>	24.1	<p>The Procuring Entity, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:</p> <ul style="list-style-type: none"> <li>a. if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring Entity pursuant to GCC Clause 22; or</li> <li>b. if the Supplier fails to perform any other obligation(s) under the Contract.</li> <li>c. if the Supplier, in the judgment of the Procuring Entity has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.</li> </ul> <p>For the purpose of this clause:</p> <p>“Corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.</p> <p>“Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.</p>
	24.2	<p>In the event the Procuring Entity terminates the Contract in whole or in part, pursuant to GCC Clause 24.1, the Procuring Entity may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Procuring Entity for any excess costs for such similar Goods or Services. However, the Supplier shall continue</p>



		performance of the Contract to the extent not terminated.
<b>25. Force Majeure</b>	25.1	Notwithstanding the provisions of GCC Clauses 22, 23, and 24, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
	25.2	For purposes of this clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Procuring Entity in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
	25.3	If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring Entity in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring Entity in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
<b>26. Termination for Insolvency</b>	26.1	The Procuring Entity may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity.
<b>27. Termination for Convenience</b>	27.1	The Procuring Entity, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Procuring Entity's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
	27.2	<p>The Goods that are complete and ready for shipment within thirty (30) days after the Supplier's receipt of notice of termination shall be accepted by the Procuring Entity at the Contract terms and prices. For the remaining Goods, the Procuring Entity may elect:</p> <ul style="list-style-type: none"> <li>a. to have any portion completed and delivered at the Contract terms and prices; and/or</li> <li>b. to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Services and for materials and parts previously procured</li> </ul>

		by the Supplier.
<b>28. Resolution of Disputes</b>	28.1	The Procuring Entity and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
	28.2	If, after thirty (30) days from the commencement of such informal negotiations, the Procuring Entity and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in SCC. These mechanisms may include, but are not restricted to, conciliation mediated by a third party, adjudication in an agreed manner and/or arbitration.
<b>29. Governing Language</b>	29.1	The Contract shall be written in the language specified in SCC. Subject to GCC Clause 30, the version of the Contract written in the specified language shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.
<b>30. Applicable Law</b>	30.1	The Contract shall be interpreted in accordance with the laws of the Procuring Entity's country, unless otherwise specified in SCC.
<b>31. Notices</b>	31.1	Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by cable, telex, or facsimile and confirmed in writing to the other party's address specified in SCC.
	31.2	A notice shall be effective when delivered or on the notice's effective date, whichever is later.
<b>32. Taxes and Duties</b>	32.1	Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Procuring Entity.

## **PART TWO (PROCUREMENT SPECIFIC PROVISIONS)**

- Invitation for Bids (IFB)
- Bid Data Sheet (BDS)
- Special Conditions of Contract (SCC)
- Schedule of Requirements
- Technical Specifications
- Qualification and Evaluation Criteria
- Sample Forms
- Eligibility

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**PART TWO SECTION I. INVITATION FOR BID (IFB)**

## INVITATION FOR BID

### **DIRECTORATE GENERAL DRUGS CONTROL & PHARMACY SERVICES KHYBER PAKHTUNKHWA, PESHAWAR FOR PROCUREMENT OF EQUIPMENT / INSTRUMENTS / GLASSWARES / INFORMATION, COMMUNICATION & TECHNOLOGY (ICT) EQUIPMENT AND OTHERS FOR ESTABLISHMENT OF PROVINCIAL FOOD AND DRUGS TESTING LABORATORIES PESHAWAR**

Directorate General Drug Control & Pharmacy Services (DG, DC & PS), Khyber Pakhtunkhwa Peshawar / Project Director invites sealed bids under National Competitive Bidding from Manufacturers and/ or Importers and/ or authorized agents for **Equipment / Instruments / Glassware / Information, Communication & Technology (ICT) Equipment and Others for FY 2021-22 for the project titled “Establishment of Provincial Drugs & Food Testing Laboratories”**.

Bidding shall be conducted through **Single Stage–Two Envelopes Bidding Procedure** comprising a single package containing two envelopes as per **KPPRA Rules-2014**. Each envelope shall contain Technical and Financial Bid separately clearly marked in bold & legible letters. The firms are expected to provide complete information of the bid along with its postal as well as valid email address and phone number/s on each respective envelope.

Interested Manufacturers and/ or Importers and/ or authorized agents must obtain Application Form along with complete set of bidding documents from the office of the Director General Drugs Control & Pharmacy Services, Block-B, Old FATA Secretariat Warsak Road Peshawar during office hours on any working day till **3<sup>rd</sup> November 2021**, against the non-refundable cash payment of Pak Rupees Two thousand per application form. The Bidding Documents may be downloaded from the following official websites: [www.healthkp.gov.pk](http://www.healthkp.gov.pk), [www.kpfsa.gov.pk](http://www.kpfsa.gov.pk) and [www.kppra.gov.pk](http://www.kppra.gov.pk).

The bidders are required to submit their inputs/reservations on Bidding Documents including Specifications, Criteria etc. to the Project Director / DG, DC & PS office in writing on or before 25<sup>th</sup> October 2021, as category wise pre-bid meetings with the interested bidders will be held on,

- I. 26<sup>th</sup> October 2021 for relevant bidders of equipment related to Drug Testing Laboratory.
- II. 27<sup>th</sup> October 2021 for relevant bidders of equipment related to Food Testing Laboratory.

Interested Bidders must submit sealed bids to the office of the Project Director / DG, DC & PS on or before **11:00 AM sharp, Thursday 4th, November 2021** which will be opened on the same day at 11:30 AM in the presence of those bidders or their representatives, who choose to attend the process. Bid submitted after 11:00 AM shall not be entertained.

Financial bid must be accompanied with Bid Security of 2% of the bid value in the name of the Project Director / Director General Drugs Control & Pharmacy Services Khyber Pakhtunkhwa Peshawar, which shall be from bank account of the prospective bidder. Ordinary cheque and Payment Order (PO) in the form of bid security shall result in disqualification of bidder as per KPPRA Act 2012 and Rules 2014.

Technical bids must be accompanied with a photocopy of the bid security (not showing the amount) and an Affidavit on Judicial Stamp paper to the effect that bid security as per Bid data Sheet is attached in the financial bid, failing which the technical bid will be considered as non-responsive.

Bids must be computer typed & printed and the offered bid prices must be written both in words & figures. Bid prices/ quotations with cutting and over-writing shall not be accepted to the extent of that particular quoted item. An authorized person of the bidder/firm shall sign & stamp all pages of the bid having numbers on each page. Firms shall submit bids in hard/Tape binding, and bids submitted in box file/ loose file will be considered non-responsive.

The technical proposal shall contain all the details in accordance with standard specification of the items/goods mentioned in the Schedule of Requirements (SOR) which must be supported by

catalogue/Brochures issued by original manufacturer. Bids will be submitted on the format mentioned in BSD under returnable bidding forms. All bidders are also required to submit the quoted products list with the specifications in soft copies on a readable Computer USB in soft form (*MS Word or Excel*) and, duly labeled by a permanent marker with the name of bidder/ firm. Bidders are required to offer the most competitive rate of their items, as negotiations on quoted rates are not allowed under the rules.

The undersigned reserves the right to reject any or all the bids as per provisions contained in Rule 47 of KPPRA Rules 2014.

Project Director, Establishment of Food and Drug Testing Laboratories  
Director General Drug Control & Pharmacy Services,  
Khyber Pakhtunkhwa, Old FATA Secretariat Warsak Road, Peshawar  
**Tel No: 091-9222824.**  
**Email: [dgdrugcontrol@gmail.com](mailto:dgdrugcontrol@gmail.com)**

## **SECTION II. BID DATA SHEET**



## BID DATA SHEET

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders **(ITB) Part One**. Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

Ref No	Introduction	Description
<b>ITB 1.1</b>	Name of Procuring Entity of Government of Khyber Pakhtunkhwa:	Project Director / Directorate General Drug Control & Pharmacy Services Khyber Pakhtunkhwa Peshawar.
<b>ITB 1.1</b>	Loan or credit or Project allocation Number: Loan or credit or Project Allocation amount:	<b>ADP No. 1159/210282</b> "Establishment of Provincial Food & Drug Testing Laboratory Khyber Pakhtunkhwa"
<b>ITB 1.1</b>	<b>Name of Project:</b>	Establishment of Provincial Food & Drug Testing Laboratories.
<b>ITB 4.1</b>	<b>Name of Contract:</b>	Procurement Of Equipment / Instruments / Glassware / Information, Communication & Technology (ICT) Equipment and Others for Establishment of Provincial Food & Drugs Testing Laboratories Peshawar.
<b>ITB 6.1</b>	<b>Procuring Entity's Address, telephone, Telex, and facsimile, numbers:</b>	Project Director / Director General Drug Control & Pharmacy Services Khyber Pakhtunkhwa Peshawar Tel No: 091- 9222824 Email: dgdrugcontrol@gmail.com
<b>ITB 8.1</b>	Language of the bid.	Language of the bid is <b>English</b> .
<b>Bid Price and Currency</b>		
<b>ITB 11.2</b>	<b>Currency</b>	The price quoted shall be in <b>Pakistani Rupees (Rs)</b>
<b>ITB 11.5</b>	<b>Quoted Price</b>	The quoted Price will be <b>fixed</b>
<b>Preparation and Submission of Bids</b>		
<b>ITB 13.2</b>	Documentary evidence of the Bidder's qualifications to perform the Contract if its Bid is accepted:	<p>That, in the case of a Bidder offering to supply Goods under the Contract that the Bidder manufactures or otherwise produces (using components supplied by primary manufacturers) that the Bidder:</p> <ol style="list-style-type: none"> <li>is incorporated in the country of manufacturing of the Goods</li> <li>has been licensed by the regulatory authority in the country of manufacture to supply the Goods.</li> <li>has manufactured or marketed the specific goods covered by this bidding document or similar Goods for at least two (2) years.</li> </ol> <p>That, in the case of a Bidder offering to supply Goods under the Contract and does not manufacture or otherwise produce the goods offered,</p> <ol style="list-style-type: none"> <li>The bidder must be duly authorized by a</li> </ol>

		<p>manufacturer of the Goods that meets the criteria under <b>(a)</b>, to supply the Goods in Pakistan;</p> <p>The Bidder shall also submit the following additional information:</p> <ul style="list-style-type: none"> <li>e) Signed &amp; Stamped copies of its audited financial statements for the past three fiscal years.</li> <li>f) Valid, Signed &amp; Stamped NTN and STRN certificates.</li> <li>g) Affidavit on legal stamp paper</li> </ul>
<b>ITB 13.3 (d)</b>	<b>Qualification requirements:</b>	<ul style="list-style-type: none"> <li>a. Manufacturer / Importer / Sole Agent of Manufacturer for (Category-A and B)</li> <li>b. Manufacturer / Importer / Authorized Agent for (Category-C and D).</li> <li>c. Bidder's Certificate of Incorporation in Procuring Entity's country.</li> <li>d. Manufacturer's Authorization(s) (Such authorization letter shall be furnished in accordance to the sample format of bid solicitation document).</li> <li>e. The bidder(s) must provide copy of Bidder's Certificate of Incorporation/ registration signed and stamped.</li> <li>f. The bidder(s) shall provide National Tax No. and Sales Tax No. The bidder should be on Active Taxpayers List (ATL) on FBR.</li> <li>g. Bidder(s) must provide an Affidavit on judicial stamp paper, of Rs. 100/- or more, that the bidder is not blacklisted by any Public Sector Organization.</li> <li>h. The bidder should have an average annual turnover in the last three years equal to or more 50 million PKR. Alternately, the bidder should have successfully completed in the last three years any specific project having value equal to or higher than 50 million PKR.</li> <li>i. Two years supported warranty after sales &amp; services, free of cost (with spare parts).</li> <li>j. Bid Validity period of 180-days.</li> <li>k. Submission of required amount of earnest money. A confirmation to this extent shall be provided in Technical Bid (without showing the amount).</li> </ul> <p><b>Bidder(s) shall furnish, as part of its bid (along with Bid Forms &amp; Price Schedule) the following documentary evidence to proof Bidder's qualifications to perform the Contract and all evidence submitted must be signed &amp; stamped by the bidder.</b></p>
<b>ITB 13.3 (e)</b>	<b>Spare parts required</b>	<ul style="list-style-type: none"> <li>a. Three Years free of cost provision of services and</li> </ul>

	<b>for period of years of Operation:</b>	<p>spare parts under warranty period.</p> <p>b. Two Years free of cost service without spare parts.</p> <p>c. Ten Years parts availability in market and will provide certificate for the same.</p> <p>Separate list of spare parts must be submitted for each equipment. The list must be individually itemized and submitted with the technical bid. The spare parts must also be individually costed, and cost of each spare part must be separately submitted with financial bid.</p> <p><b>The cost of spare parts must not be added to the price of equipment.</b></p> <p><b>This requirement does not obligate Procuring Entity to Purchase the spare parts</b></p>
<b>ITB 15.1</b>	<b>Amount of bid security:</b>	The Bidder shall furnish, as part of its bid, a Bid Security/Earnest Money equivalent to 2% of the bid price in Shape of CDR from the account of bidder /firm who submits the bid.
<b>ITB 16.1</b>	<b>Bid validity period:</b>	180 Days from the date of Technical Bid Opening.
<b>ITB 17.1</b>	<b>Number of copies:</b>	<b>One Copy Hard format + USB as mentioned in the IFB</b>
<b>ITB 18.2 (a)</b>	<b>Address for bid submission:</b>	Project Director / Director General Drug Control & Pharmacy Services Khyber Pakhtunkhwa Peshawar
<b>ITB 18.2 (b)</b>	<b>IFB Title:</b>	<b>IFB Title:</b> Procurement of Equipment / Instruments / Glassware / Information, Communication & Technology (ICT) Equipment and Others For Establishment Of Provincial Food And Drugs Testing Laboratories Peshawar.
<b>ITB 19.1</b>	<b>Deadline for bid submission:</b>	<p><b>Date:</b> 4<sup>th</sup> November 2021.</p> <p><b>Time:</b> 11:00 AM</p>
	<b>Pre-Bid meeting with the bidders:</b>	<p>The bidders are required to submit their inputs/reservations on Bidding Documents including Specifications, Criteria etc. to the Project Director / DG, DC &amp; PS office in writing on or before 25th October 2021, as category wise pre-bid meetings with the interested bidders will be held on,</p> <p>i. 26<sup>th</sup> October 2021 for relevant bidders of equipment related to Drug Testing Laboratory.</p> <p>ii. 27<sup>th</sup> October 2021 for relevant bidders of equipment related to Food Testing Laboratory.</p>
<b>ITB 22.1</b>	<b>Time, Date, and Place for Bid Opening:</b>	<p><b>Name:</b> Directorate General Drug Control &amp; Pharmacy Services / Project Director</p> <p><b>Building:</b> Block-B, Ground Floor, Ex-Fata Secretariat,</p>

		Warsak Road Peshawar.  <b>Bid Opening Date:</b> 4 <sup>th</sup> November 2021  <b>Bid Opening Time:</b> 11:30 PM
<b>Bid Evaluation</b>		
<b>ITB 23.1</b>	<b>Clarification of Bids:</b>	The Procuring Entity may ask the Bidder in writing, only for clarification regarding the received documents in the bid. However, no change in the prices or substance of the bid shall be sought, offered, permitted, or entertained. This communication shall be with the prior approval of Chairperson Procurement / Executive Committee.
<b>ITB 25.3</b>	<b>Evaluation and Comparison of Bids:</b>	<b>Merit Point Evaluation</b> The items ranked highest in merit points (obtained through and based on technical and financial evaluation) will get unit rate central Contract.  a. Technical Specifications b. Performance Specifications c. Evaluation Criteria d. Financial Proposal
<b>ITB 25.4 (a)</b> <b>ITB 25.4 (b)</b>	One option only Delivery schedule. Relevant parameters in accordance with Option selected.	<b>Not Applicable</b>
<b>Option I</b> <b>Option II</b> <b>Option III</b>	Adjustment expressed as a Percentage, or adjustment expressed in an amount in the currency of bid evaluation.	<b>Not Applicable</b>
<b>ITB 25.4 (c)</b> <b>(ii)</b>	Deviation in payment schedule: Annual interest rate:	<b>Not Applicable</b>
<b>ITB 25.4 (d)</b>	Cost of spare parts:	<b>Not Applicable</b>
<b>ITB 25.4 (e)</b>	Spare parts and after sales service facilities in the Procuring agency's Country.	<b>As per Section IV Technical evaluation criteria</b>
<b>ITB 25.4 (f)</b>	Operating and maintenance costs:	<b>Not Applicable</b>
<b>ITB 25.4 (g)</b>	Performance and Productivity of Equipment:	<b>Not Applicable</b>

<b>ITB 25.4 (h)</b>	Details on the evaluation method or reference to the Technical Specifications:	<b>Evaluation of Bids will be based on following factors:</b> <ol style="list-style-type: none"> <li>Technical Specifications</li> <li>Performance Specifications</li> <li>Sample Evaluation</li> <li>Delivery Period</li> <li>Warranty Provisions</li> <li>After Sale Service (Availability of after sale service Facilities in Khyber Pakhtunkhwa)</li> </ol>
<b>ITB 28.1</b>	<b>Award Criteria</b>	As per <b>Section 2 (1)(c)(i) of KPPRA Act 2012</b> The highest-ranking fair bid in accordance with the evaluation criteria set forth here in these bid solicitation documents. Highest Ranking fair bid is the bid i.e. Substantively responsive and Ranks 1st based on achieving highest combined Technical & Financial Evaluations Scores.
<b>ITB 29.1</b>	<b>Percentage for quantity increase or decrease</b>	The Procuring Entity reserves the right at the time of contract award to increase or decrease, the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
<b>ITB 33.1</b>	<b>Performance Security</b>	10% of the total price of award of contract or as desired by the Procuring Entity at the time of contract considering the 2% Earnest money already submitted as CDR.

**SECTION III. SPECIAL CONDITIONS OF CONTRACT**

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## SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (**SCC**) shall supplement & qualify the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses

### 1. Definitions (GCC Clause 1)

GCC 1.1 (g)—The **Procuring Entity** is: Project Director / Director General Drug Control & Pharmacy Services Khyber Pakhtunkhwa Peshawar.

GCC 1.1 (h)—The **Procuring Entity's Country** is: **Pakistan**

GCC 1.1 (i)—The **Supplier** supplying Goods and Services under this Contract is:

- i) Manufacturer and/or Importer and or Authorized agent of manufacturer registered with relevant sales and income tax authorities and have requisite qualification and eligibility for the requisite equipment as advertised in this bidding document.
- ii) Manufacturer of Laboratory Testing Equipment, Instruments & Accessories in Pakistan; and
- iii) Importer of Laboratory Testing Equipment, Instruments & Accessories in Pakistan.

GCC 1.1 (j)—The **Project Site** is: **Provincial Food and Drug Testing Laboratories, Phase-5, Hayatabad, Peshawar.**

### 2. Sample Provision:

- a) Before the opening of the Financial Bid, as and when required, the Focal Person of the bidder will be informed on phone or through email to provide samples of the Equipment/ items in sufficient / required quantity to the Project Director / DG, DC & PS or Project Site or any other place notified by the procuring entity, at bidder's own risk and cost at the time and date communicated. The bidder shall arrange for demonstration of offered items within the period specified by the Procuring Entity, for examination / analysis and scoring technical bids. The bidder must be prepared to do so by keeping one sample unit having same quoted/offered make/model with accessories ready at its disposal. Samples of the quoted Equipment/ item must be furnished free of charge and in a timely manner.
- b) If Bidder fails to provide sample of Equipment/ item offered for presentation or fails to demonstrate the technical specification or performance of the Equipment/ items to the satisfaction of the Technical Evaluation Committee or the Procuring Entity the Bidder's Proposal for such Equipment/ items will be non-compliant / non-responsive and will be disqualified by the Procuring Entity in its sole discretion and their financial bids will be returned unopened.
- c) The Procuring Entity will inspect and examine carefully, samples supplied by bidders. However, Procuring Entity will hold no responsibility for compensation for samples lost or destroyed during demonstration process. Samples will be returned immediately after demonstration process/ sample evaluation.



### 3. Country of Origin (GCC Clause 3)

GCC 3.1—All countries and territories as indicated in Part Two Section VI of the bidding documents, “Eligibility for the Provisions of Goods, Works, and Services in Government-Financed Procurement”. The bidder will provide the details regarding country of origin, Model, Make, manufacturer, along with details of Manufacturing Units and mode of supply, shipment, and any other associated details of the component items and that of the quoted equipment. Bidders are bound to supply the equipment from quoted country of origin only

### 4. Performance Security (GCC Clause 7)

GCC 7.1—The amount of performance security, as a percentage of the Contract Price, shall be: **Ten (10) percent** of the Contract Price

### 5. Standards (GCC Clause 4): As mentioned in GCC clause 4.1

### 6. Inspections and Tests (GCC Clause 8)

**GCC 8.6—Inspection and tests** in accordance with the clauses of contract with Procuring Entity: Inspection and tests include but is not limited to:

- Technical Evaluation shall be conducted by the Technical Committee or scrutiny Committee or as nominated by the Procuring Entity to undertake verification of documents submitted by the bidder/s along with the technical bids as well as to conduct the physical inspection of the various samples &/or relevant premises as per rent agreement or ownership etc. (Section-V - Technical Specification of the Part II of these SBDs)
- Machinery & Equipment and other items supplied for sample tests shall be examined and tested by a panel of experts nominated for this purpose by the Procuring Entity for submission of technical report to the Executive Committee of Procuring Entity.
- Sample tests as well as pre-shipment inspections may also be carried out as and when needed before signing of contract agreement with the successful bidders for Machinery & Equipment, instruments etc.
- Any other appropriate method may be adopted by the Technical Committee, and / or Executive Committee to assess and/or assure the quality of goods being purchased. The Procuring Entity reserves the rights to reject the quoted items/ equipment at any stage before award of contract in case of any deviation from the standard specifications.
- Examine the original documents related to the fitness of the offered Goods / items in all respects including but not limited to Bill of Lading / Airway bill(s), Goods Declaration(s), Certificate/ Declaration of Conformity/ Compliances/ Analysis, invoice etc.
- The bidder will be disqualified for competition, if Procuring Entity declare that the bidder did not meet the mandatory technical requirements for qualification at the time of inspection as mentioned in **Section IV. Technical Specifications**
- Goods/ items will be examined and / or tested by Procuring Entity in a manner as deemed

relevant and appropriate (including testing at specialized bodies). No claim for Goods/ items tested for quality will be entertained, costs of tests will be incurred by respective bidder.

## **7. Packing (GCC Clause 9)**

The goods, including all packaging and packing thereof, conform to the specifications of the Contract, including any applicable standards provided for in the Contract or, if no applicable standards are provided, the most recent authoritative standards issued by the relevant institution in the goods' country of origin. The goods are securely contained, packaged and marked in accordance with normal commercial standards of export packing for goods of this type and in a manner so as to protect the goods while in storage or in transit to their ultimate destination.

## **8. Delivery and Documents (GCC Clause 10):**

**Applicable Delivery Mode:** Delivered Duty Paid (DDP)

The Supplier shall provide the following documents: GCC 10.3—Upon shipment, the Supplier shall notify the Procuring Entity the full details of the shipment, including Contract number, description of Goods, quantity and usual transport document. The Supplier shall mail the following documents to the Procuring Entity:

- i All documents submitted by the bidder as evidence shall be attested and the attestation shall be inked in original, documents where attestation is provided as a photocopy will not be accepted.
- ii Copies of the Supplier's invoice showing goods' description, quantity, unit price, and total amount;
- iii Original and two copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods;
- iv The Suppliers, shall make delivery of the goods in such number of days or date from the date of issuance of Purchase order and signing of the contract with the successful bidder in accordance with the terms specified in the Schedule of Requirements, Specific Technical Evaluation Criteria for each category (A, B, C & D). The details of original documents to be furnished by the Supplier are as follows;
  - a) Operational Manuals of the Equipment. Service Manuals indicating step by step service / maintenance protocols of each Equipment.
  - b) Periodic Preventive Maintenance schedules with recommended list of Parts / Kits to be replaced during useful life.
  - c) A copy of Test / Inspection Procedure Manual of all equipment as duly recommended by the manufacturer. At the time of sample provision or at the time of final delivery the bidder may be required to perform all or any combination of random checks.
  - d) Product model and part numbers, bar code, QR Code (If available) and Catalogue.
  - e) Verifiable / Traceable Certificate of calibration of Equipment / item must be provided;

- f) Legible certificate indicating shelf life (where applicable);
- g) Copies of the packing list identifying contents of each package;
- h) Insurance certificate (where applicable);
- i) Manufacturer or Supplier's warranty certificate;
- j) Inspection certificate, issued by the nominated inspection Entity, and the Supplier's factory inspection report; and
- k) Certificate of origin.

## **8. Insurance (GCC Clause 11)**

GCC 11.1— The Goods supplied under the Contract shall be delivered duty paid (DDP) under which risk is transferred to the buyer after having been delivered, hence insurance coverage is sellers' responsibility. Since the Insurance is seller's responsibility, they may arrange appropriate coverage.

## **9. Spare Parts (GCC Clause 14)**

A list of recommended Spare Parts that usually require replacement over the life of proposed equipment / item must be separately provided. This requirement does not constitute any obligation for purchase of such spare parts.

## **10. Warranty (GCC Clause 15)**

**GCC 15.4 — Execution of Warranty** Maintenance during warranty period will be the responsibility of the Supplier. An annual optimal uptime of **90%** is considered as acceptable level of performance during the period of warranty.

The Procuring Entity shall promptly notify the supplier in writing for any claims arising under this warranty.

Supplier will be bound to provide replacement of parts warranty instead of repair.

The Supplier will provide the recommended preventive maintenance schedule of each of the equipment at the time of delivery.

The Supplier will bound to execute the maintenance according to the manufacturer's recommended protocol and will replace the components / kits recommended by the manufacturers for installation and Periodic Preventive maintenance.

**GCC 15.4 —** The maximum response time for maintenance complaint from the destination specified in the Schedule of Requirements (i.e., time required for supplier's maintenance engineer to report at the site after a request call /fax/ email, or any method of communication) shall not exceed 24 hours.

During the Warranty and the SLA, the supplier will be required to maintain the equipment in good working condition for a minimum period of **329 days** out of a period of **365 days**. i.e. (**90% uptime**). 8 hours non-functioning of the equipment will be considered as one day down time.

Essential period to shut down the installation entirely or partially shall also be included in the down time while calculating the 90% guaranteed uptime. This guaranteed uptime shall be calculated for each block of 365 days. The Response time to any fault should be not more than 48 hrs. In case the equipment cannot be made functional within 4 days or 96 hours, the supplier has to make arrangement for an alternative. Maximum time allowable for providing alternative equipment / item, correcting the fault would be Seven (07) continuous days.

**GCC 15.5** — In case equipment is not useable beyond the stipulated maximum down time the Supplier will be required to arrange for an immediate replacement of the same till such time it is so required. Failure to arrange for the immediate replacement of equipment will make the Supplier liable for a penalty at the rate of **0.25%** of the price per non-functional unit per day and at **1.75%** Week beyond the stipulated downtime period. The amount of penalty will be recovered from the performance security bank guarantee.

**Down time** is defined as the failure in the equipment operation to acquire or process the data or procedure, resulting in inability to carry out the required procedure properly.

Down time will start when the Lab In charge or any other individual of the procuring entity, (request call /fax/ email, or any method of communication inform the supplier regarding failure of equipment. Down time will end once the repairs have been affected and the system is again available for practical work.

Supplier will warrant that warranty for replacement of parts and equipment will be provided; no repairing warranty will be accepted. Software and hardware up gradation of the computing system should be carried out as available during warranty period as desired by end user or as recommended by the manufacturer.

Subject to **GCC Sub-Clause 22.1 (b)**, All such warranties for the goods shall remain in effect for a period specified in or for such other longer period that the original Supplier of original manufacturer normally provides for such goods or a longer period agreed upon in this Contract after the goods are placed in use (the “Warranty Period”);

During any period in which the Bidder’s warranties are effective, upon notice by Procuring Entity that the Equipment/ items do not conform to the requirements of the Contract, the Bidder shall promptly and at its own expense correct such non- conformities or, in case of its inability to do so, replace the defective goods with goods of the same or better quality or, at its own cost, remove the defective goods and fully reimburse Procuring Entity for the purchase price paid for the defective goods. In the event the Bidder fails to repair or replace defective or non-conforming goods within a reasonable time, Procuring Entity may replace or repair the goods and charge or debit the Bidder for all costs connected therewith or, if such replacement or repair is not practicable.

The Bidder shall remain responsive to the needs of Procuring Entity for any services that may be required in connection with any of the Supplier’ warranties under the Contract.

If the Bidder is not the original manufacturer of the goods, the Bidder shall provide Procuring Entity with the benefit of all manufacturers’ warranties in addition to any other warranties required to be provided under the Contract;

For goods ordered, the Supplier shall provide or maintain a Service Level reasonably constituted to handle requests from Procuring Entity or its Members or other ultimate beneficiaries for technical assistance on maintenance, service repairs, and calibration of the Equipment/ item once the Warranty period expires.

**Guarantees:**

Unless otherwise specified in the Contract, in addition to and without limiting any other warranties, remedies or rights of Procuring Entity stated in or arising under the Contract, the Bidder guarantees and represents that:

Availability of Spare Parts that usually require replacement over the life of proposed equipment / item must be separately provided. This requirement does not constitute any obligation for purchase of such spare parts.

The Supplier guarantees that the goods are fit for the purposes for which such goods are ordinarily used and for purposes expressly made known to the Procuring Entity, are of current manufacturer and are of even quality and free from defects in design, workmanship, material and manufacturing;

The Equipment/ items are of the quality, quantity and description required by the **(BSD)** / Contract, including when subjected to conditions prevailing in the place of final destination;

The Equipment/ items are free from any right of claim by any third-party, including claims of infringement of any intellectual property rights, including, but not limited to, patents, copyright and trade secrets;

The Supplier guarantees that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

The Supplier further guarantees that the Goods shall be free from defects arising from any act or omission or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the final destination.

The Bidder shall, in addition, comply with the guarantees associated with the performance and/or conformance specifications specified under the **(BSD)** / Contract. If, for reasons attributable to the Bidder, these guarantees are not attained in whole or in part, the Bidder shall, at its discretion, either:

- a) Replace the equipment/ item in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance / conformance tests in accordance with GCC Clause 10,

Or

- b) Pay liquidated damages to the Procuring Entity with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be **0.25%** per day to a maximum of **10%** of the total relevant equipment/ item price.

- c) In case of Failure to comply to the contractual guarantees once the liquidated damages are above **10%** of the total relevant equipment/ item price and the contractual guarantees are not attained the contract will be cancelled the performance security will be forfeited and the supplier will be proceeded under blacklisting/ debarment mechanism of the Procuring Entity.

**ACCEPTANCE OF GOODS:** Under no circumstances shall the Procuring Entity be required to accept any goods that do not conform to the technical specifications or requirements of the **(BSD)**. Procuring Entity may condition its acceptance of the goods upon the successful completion of acceptance tests as may be specified in **(BSD)** or in the Contract or otherwise agreed in writing by the Parties. In no case shall Procuring Entity be obligated to accept any goods unless and until Procuring Entity has had a reasonable opportunity to inspect the goods following delivery and all required satisfactory inspection reports have been provided to Procuring Entity. In no case shall delivery of equipment by Manufacturers and/ or Importers and/ or authorized agents to Procuring Entity in and of itself constitute acceptance of the goods. The delivered Equipment / Items / Goods will only be accepted when the equipment has been installed and preliminary inspection / verification of the required function of the equipment has been completed to the satisfaction of the Procuring Entity.

**11. Payment (GCC Clause 16) Payment for Goods supplied:** Payment shall be made in Pak. Rupees in the following manner:

- Payment shall be made in Pak. Rupees through crossed cheque in the following manner: 100 percent of the Contract Price of the Goods shall be paid to supplier within thirty (60) days after delivery & inspection by the Inspection Committee of intended goods at destination or, in case of any import, through irrevocable confirmed letter of credit opened in favor of the Supplier for supplying in Client's country, upon submission of documents specified in GCC Clause (16).
- The Procuring Agency hereby covenants to pay the Supplier in consideration of the provision of the Equipment/ Goods and Services, as specified in the Schedule of Requirements in accordance with the Price Schedule, the amount against the delivered equipment / goods and services or such other sum as may become payable under the provisions of this Contract.
- A copy of General Sales Tax ('GST') Invoice showing the amount of sales tax, must be submitted along with the Invoice. In case, GST is not applicable, the Supplier shall provide the documentary evidence to the said effect.
- Income/withholding tax shall be deducted at source as per applicable taxation laws, while making the payments. In case supplier claims any exemption from such taxes then supplier shall provide the documentary evidence to the said effect.
- No Payment will be made for partial and incomplete supply of Equipment/ items, for what so ever reason.

**12. Prices (GCC Clause 17)**

- The price will remain fix. All prices must include all the taxes and duties, where applicable. If there is no mention of taxes, the offered/ quoted price shall be considered as inclusive of all prevailing taxes/ duties.

- The bidder will not quote price of any item/s which is/are higher than the prices quoted by the bidder across the country to any procuring entity of the quoted item/s through public funding.
- In case the bid price is higher than estimated cost, the Procuring agency has the right to reject the bid and scrap the process without any liability.
- The procuring agency may carry out the market analysis before issuing a letter of consent to the successful bidder.

#### **11. Subcontracts (GCC Clause 21)**

Subcontracts are not allowed.

#### **12. Liquidated Damages (GCC Clause 23)**

Applicable rate: **0.75%** per day of the total Contract price. Maximum deduction: = **10%** of the total contract amount. As in relevant clauses of the Contract Agreement signed by the Supplier with the Procuring Entity. Penalties shall be imposed as per contract agreement and blacklisting & debarment guidelines of the department if the firm deviates from Contract Agreement.

#### **13. Disputes Resolution (GCC Clause 28)**

The dispute resolution mechanism to be applied will be pursuant to relevant clauses of Contract Agreement signed by Supplier with the Procuring Entity per law. In the case of non-resolution dispute shall be referred to adjudication or arbitration in accordance with The Arbitration Act 1940. If at all required, the jurisdiction of Court shall be of Peshawar, Khyber Pakhtunkhwa.

#### **14. Governing Language (GCC Clause 29)**

The Governing Language shall be: **English**.

#### **15. Applicable Law (GCC Clause 30)**

The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan, which includes the following legislation:

- i. The KPPRA Act 2012, KPPRA Rules 2014 and prevailing regulations etc.
- ii. The Contract Act 1872
- iii. The General Financial Rules of the Govt. of Khyber Pakhtunkhwa and all the relevant laws, rules and regulations pertaining to budgeting & financial management of public fund.
- iv. The Bonded Labor System (Abolition) Act of 1992.
- v. Child Labor (relevant Act Rule) e.g. Khyber Pakhtunkhwa Prohibition of Employment of Children Act, 2015.
- vi. The Factories Act 1934.
- vii. Companies Act 2017.

viii. The Drug Act 1976, and Rules framed there under.

ix. The DRAP Act 2012 and Rules framed there under.

#### **16. Notices (GCC Clause 31)**

**GCC 31.1**— Procuring Entity address for notice purposes: Project Director / Directorate General Drug Control & Pharmacy Services Khyber Pakhtunkhwa Peshawar, Ex-Fata Secretariat, Warsak Road.

Email: dgdrugcontrol@gmail.com

Supplier's address for notice purposes: As mentioned in their bidding document

#### **17. Duties & Taxes (GCC clause 32)**

The Unit price quoted by the bidder shall be: **inclusive** of all applicable duties and taxes. All prices shall include relevant taxes & duties, where applicable. The benefit of exemption from or reduction in the GST or other taxes shall be passed on to the Purchasing Entity.

#### **18. Legal Documentary Proof:**

The Importers and/ or authorized agents must possess valid legally enforceable exclusive authorization from the Foreign/ Local Manufacturer; they should have a documentary proof to the effect that they are the original Manufacturer of the required goods. Bidders shall establish all legal documentary proofs where required/ ask by the Project Director (DG, DC & PS).

#### **19. Ineligibility for Corrupt and Fraudulent Practices:**

Bidders should not be under a declaration of ineligibility for corrupt and fraudulent practices issued by any Government (Federal, Provincial), a local body or a public sector organization.

#### **20. Letter of Authorization:**

The Authorized agent shall have to produce Exclusive letter of embassy attested authorization / Sole Agency Certificate from Manufacturer and in case of Manufacturer, documentary proof to the effect that they are the original Manufacturer of the required goods shall be provided, or joint venture/ consortium/ alliance of the local Sole agents/manufacturers. In case of imported products, the authorization shall be attested from the embassy of Pakistan in the country of manufacturing or embassy of the manufacturing country in Pakistan. Bidders shall provide letter of authorization from foreign/local Manufacturers whose shall not be in the process of winding up/liquidations.

In case of Manufacturers documentary proof to the effect that they are the original Manufacturer of the required goods shall be provided. In case of Importers and/ or authorized agents attested authorization / Sole importer / Sole Agent Certificate from the Manufacturer on their letter head shall be provided. Template has been provided in Section-VI of this **(BSD)** which may be followed for providing Authorization certificate.

#### **21. Technical Staff and Tools:**



The Bidder should have strong engineering background and necessary tools/ testing equipment, trained staff for the required after sales services of equipment / goods.

**22. Minor Deviation:**

The Procuring Entity may waive off any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation (or changes the substance of the bid), provided such waiver does not prejudice or affect the relative ranking of any Bidder. Any item other than quoted and approved shall not be supplied to procuring entity without intimation to procurement cell and Supply shall be subject to clearance from Executive Committee on recommendation of technical experts of Procurement notified by Chairman Technical Committee.

**23. Deviation from critical Provision:**

Deviations from, or objections or reservations to critical provisions shall be deemed to be a material deviation from technical proposals and thus the bid will be declared as non-responsive. Any model supplied other than quoted and approved will be considered as deviation/ forgery and will be rejected straightaway at the cost and risk of the supplier.

**24. Prevailing Rules, Regulation and Policies:**

A bid once opened in accordance with the prescribed procedure shall be subject to only those rules, regulations and policies that are in force at the time of issue of notice for invitation of bids.

All bids shall be evaluated in accordance with the evaluation criteria and other terms and conditions set forth in the bidding documents.

**25. Alternate Bid:**

Different models/ prices offered for a single item by the same bidder shall be considered as alternate bid and shall be non-responsive.

**26. After Sale Service:**

Certificate from the manufacturer that the after sales services / backup services shall be provided jointly with the local Importer / Sole Agent and in case of change of local agent, they will provide the after sales services themselves or through newly appointed agent for the period mentioned from the date of commissioning.

**27. Testing and Calibration**

The firm must have all kind of testing and calibration equipment, which is required to maintain the products, which they are dealing. The list of all required testing equipment would be provided along with the technical bid. The available testing equipment must be calibrated. The successful bidders shall provide complete technical manual and operation manual equipment / items to the end user.

**28. Manufacturer Official Website:**

The quoted model of imported product shall be available on the current official website of the manufacturer; otherwise, the quoted product shall be considered obsolete/ redundant and will straight away be rejected.

**29. Inspecting the Premises:**

The Procuring Entity has the right to inspect the premises of bidder to inspect the setups ensuring proper after sales services, documents mentioned in technical bids and any other relevant details regarding testing tools, calibration tools, spare parts etc. by relevant technical personnel.

**30. Opening of the Financial Proposals:**

After technical evaluation is completed, the Procuring Entity shall notify the date, time and location for opening of the financial proposals. Bidders' attendance at the opening of financial proposals is optional.

**31. Incomplete and Conditional Bids:**

Incomplete/ Conditional bid shall stand rejected. All items described in the technical proposal must be priced in financial proposal. No conditional bid in term of Technical/Financial bid will be entertained and the bidder will straight away be disqualified.

**32. Bidders Influence:**

Any effort by a Bidder to influence the Procuring Entity in its decisions on bid evaluation, bid comparison, or Contract Award will result in the rejection of the Bidder's bid and subsequent black listing, if Procuring Entity so desires. Canvassing by any Bidder at any stage of the Tender evaluation is strictly prohibited.

**33. Quantity Variation:**

The Procuring Entity reserves the right at the time of Contract award to increase or decrease the quantity of goods as per permissible limits under the Rules 2014 originally specified in Schedule of Requirements without any change in unit price or other terms and conditions.

**34. OEM:**

The Manufacturer should have documentary evidence to the effect that they are the original manufacture of the quoted product/s with indication of manufacturing site and its location.

**35. List of Related tools/parts:**

The details regarding testing, calibration tools shall be submitted in bid which will be verified during inspection. The list is attached in this document and marks will be awarded after verification & recommendation by relevant technical personnel during inspection stages.

**36. Technical Bid Submission Vis-à-vis Format:**

The bidders will quote the technical bids on the format/ Form given in Section-VI Bid Forms "Returnable Schedules" the sample form.



## **SECTION IV. SCHEDULE OF REQUIREMENTS**

## SCHEDULE OF REQUIREMENTS

1. All the bidders must submit the quotations of offered equipment / items on the format provided in **Section-VI “Bidding Forms”** under “Returnable Bid Forms” for category A, B, C & D.
2. In case of imported items of category, A, B, C & D the quoted items shall be registered for use in their country of origin, for which the Importers should provide valid authorization Certificate for their quoted products duly attested by the embassy of the country of origin in Pakistan or the embassy of Pakistan in the country of origin of the quoted items or where the commercial office located for the quoted items. Non-provision of valid embassy attested authorization for imports will lead to disqualification of firm in Category A, B and C.
3. All certifications of regulatory bodies, Manufacturer authorizations and data/ documents shall be valid and attestation shall be in original, photocopies and / or scanned documents will not be considered. Committee may carry out the verifications on or before award of contract and in case of any fraudulent practice; legal action will be taken against the bidder concerned. Any certificate expires before bid opening will not be entertained.

Valid Certifications of the following authorized regulatory bodies as well as any other relevant authorized regulatory body of Stringent Regulatory Authorities (**SRA**) countries that must cover the quoted equipment / items in its scope shall be acceptable:

Regulatory authority		Certification
Australia	Therapeutic Goods Administration (TGA)	TGA Device License
Canada	Health Canada	Device License
European Union	Regulatory agency in the European countries	93/42/EC Medical Device Directive 98/79/EC IVD Directive
Japan	Pharmaceuticals and Medical Devices Agency (PMDA)	Device License
Japan	Japan Industrial Standards (JIS)	
USA	Food and Drug Administration (FDA)	CFR 21-part 11
USA	U.S. Department of Agriculture (USDA)	
USA	Food Safety and Inspection Service (FSIS)	
ISO	International Organization for Standardization	ISO 9001, ISO 7218, ISO 4887-2
USA	Association of Official Agricultural Chemists (AOAC)	

4. Non-Provision of mandatory documents mentioned in these BSDs shall lead to disqualification of the firm / quoted items.
5. After sale satisfactory performance certificate and Satisfactory delivery completion/ performance certificates must be recognized from relevant forums having dispatch number, signature of the officer and date on letter head of procuring entity. The satisfactory performance certificate of non-recognized institution with relevant forums will not be considered.
6. The Procuring Entity, at any stage of the procurement proceedings, having credible reasons for or prima facie evidence of any defect in Supplier's capacities may require the Suppliers to provide information concerning their professional, technical, financial, legal or managerial competence as well as information regarding offered Goods/ Equipment.

7. The Procuring Entity has the right to inspect the premises of bidder (*if needed*) ensuring proper after sales services, verify documents (*if needed*) mentioned in technical bids and any other relevant details. Premises (office/workshop/warehouse) of bidder shall be insured through ownership/or Rent agreement.
8. The bidder shall provide the shipment trail of the quoted item from the manufacturing site till destination.
9. The Bid security shall be from bank account of the bidder. Ordinary cheque and Payment Order (PO) in the form of bid security shall result in bid rejection.
10. Different models/ prices offered for a single item by the same bidder shall be considered as alternate bid and shall be non-responsive.
11. Any reservations on BSD including criteria, specifications etc (if any) shall be submitted in writing in the Pre-bid meeting by authorized person/representative of the firm during the period of Pre-Bid.
12. The schedule for supply of goods shall be as under:
13. Within **90** days from the date of issuance of supply order by the Procuring Entity for items to be imported for **Category-A & B**.
14. Within **60** days from the date of issuance of supply order by the Procuring Entity for items to be locally manufactured or **Category-C & D**.
15. Successful bidders will be responsible for installation, testing & commissioning of the equipment. Successful bidders will ensure to train staff regarding method development, functioning, calibration and troubleshooting of equipment.
16. All equipment must be capable of integration with Laboratory Management & Information System (**LMIS**) through Application Programming Interface (API) based connectivity with Procuring Entity's MIS and database through internet using WIFI or Ethernet.
17. Bid must include a manufacturer's brochure or leaflet describing the equipment being offered to enable offered specifications to be verified.
18. All brochures and leaflets submitted must be written in the English language or a translation into the English language.
19. The following inspections and tests shall be performed:
  - a) The vendor must have the required Goods/ Equipment inspected in the manufacturer's works by a competent authority and submit a test certificate and also a guarantee/warranty certificate that the required Goods/ Equipment conform to written specifications.
  - b) Procuring Entity through its representatives may decide to inspect and/or test any or all item of the required Goods/ Equipment to confirm their conformity to the contract, prior to dispatch from the supplier(s) premises. Such inspection and clearance will not prejudice the right of the Procuring Entity to inspect and test the required Goods/ Equipment on receipt at destination.

20. If the required Goods/ Equipment fail to meet the laid down specifications, the supplier shall take immediate steps to remedy the deficiency or replace the defective required Goods/ Equipment to the satisfaction of the Procuring Entity.
21. The firm shall have office/ sales service center preferably in in Khyber Pakhtunkhwa Province and any other Province of the Country through which the successful Supplier is able to provide after sale services to the Procuring Entity.
22. Equipment / Items, Strips, Swabs, Re-agents & Consumables etc. must be of fresh production, with a minimum of 75% of the shelf life upon manufacture remaining at the time of delivery.
23. Successful Supplier shall ensure to complete the supply of the Goods/ items at the earliest but not later than specified Delivery Period at Serial Nos. (15) & (16) above.
24. Conditional Bids will be disqualified.
25. Country of origin / manufacturing / assembly of the quoted brand / model must be clearly mentioned for each equipment offered by each bidder.
26. Technically Qualified Bid will be the bid which substantially responsive and achieves minimum required technical score to qualify for Financial Evaluation. Bidders are required to comply **“TECHNICAL SPECIFICATIONS”** to be responsive and submit technical specifications of each equipment using template provided in Section-VI Returnable Bidding Forms it as an essential element of the bid document supported by evidence. In case of Non-compliance “Zero” score will be awarded.

### **LIST OF EQUIPMENT/ITEMS AND CATEGORIES**

<b>S.No</b>	<b>Name of Equipment</b>	<b>Category</b>
1	HPLC with Quaternary Gradient system and built-in degasser	A
2	Polarimeter	A
3	COLUMNS for HPLC	A
4	FTNIR	A
5	LAL test Kit for endotoxin	A
6	Lab Water Distillation	A
7	Reference Standards	A
8	Fire Sprinkler System	A
9	Incinerator	A
10	Automatic Soxhlet System	A
11	Sulphur-di-oxide Apparatus	A
12	Flame Photometer	A
13	Nitrogen Distillation Unit	A
14	Digestion block	A
15	Amino acid analyzer	A
16	Autoclave Vertical	A
17	Binocular Microscope	A
18	Bio Safety Cabinet Class II Type B2	A
19	BOD Incubator	A
20	Aflatoxin	A
21	Frost Free Double door (side by side) Refrigerator	A
22	Incubator (Ambient to 70 °C)	A
23	Incubator (5 °C to 50°C)	A
24	Laminar Air Flow(4ft)	A
25	Trinocular microscope	A
26	Portable NIR spectrometer	A
27	NMR	A
28	Milli-Q water/water purifier	A
59	Gel Electrophoresis (Both Horizontal and Vertical)	A
64	Milk Analyzer (Mid Infrared & Ultrasonic)	A
65	ULT Freezer Chest (-80)	A



66	Freeze Dryer	A
67	Upright Frost Free Vertical Deep Freezer (-25 °C)	A
76	Chemicals	A
29	Digital Dispenser (10ml, 50ml, 100ml) Set	B
30	Top Loading Balance	B
31	Analytical Balance	B
32	Vacuum Pumps and UV Lamps	B
33	Analytical Microbalance	B
35	TDS meter	B
36	Water Activity Meter	B
37	Moisture Analyzer	B
38	Fume Hoods (Size 3ft)	B
41	EC conductivity bench meter	B
42	pH Meter	B
44	High Speed Centrifuge machine (Refrigerated)	B
45	Automatic Muffle Furnace	B
46	Laboratory Oven 100 C >	B
47	Multimode ELISA reader and plate washer	B
48	Professional Rancimat	B
49	Differential Scanning Calorimeter (DSC)	B
52	Ultrasonic bath sonicator digital	B
53	Solvent Filtration Assembly	B
54	Anaerobic Jar 1.5L~10L	B
55	Automated glassware washer	B
57	Digital Colony Counter	B
58	Gerber Centrifuge	B
60	Refractometer	B
61	Polarimeter	B
62	Viscometer	B
63	Density Meter	B
68	Micro Filtration Assembly	B
71	Automatic electronic pipettes (0.5 – 10ul, 1-20ul, 2-100ul, 10-200ul, 15-300ul, 50-1000ul, 0.125-2.5ml, 0.2-5ml and 0.5-10ml)	B
72	Auto Titrators	B

73	Digital Burette	B
74	Micropipette	B
78	Multimedia	C
79	Still camera	C
80	Movie camera	C
81	Computer/Printers with central work station	C
82	Photocopier	C
83	UPS	C
34	Sonicators, Stirrers, Desiccators, Mortar and Pestles	D
39	Hot plate	D
40	Magnetic stirrer digital	D
43	Mechanical Shaker	D
50	Water bath	D
51	Test tube shaker (Vortex mixture)	D
56	Circulating water bath	D
69	Glassware drying cabinet	D
70	PPEs and Lab Safety Equipment	D
75	Glassware (Beakers, Flasks, Cylinders, Pipettes etc.) PYREX	D
77	Reference Books	D

### **TECHNICAL SPECIFICATIONS**

**Note: 21 CFR compliance is mandatory for all equipment/ items under Category-A**

#### **LIST OF CATEGORY (A) EQUIPMENT AND TECHNICAL & PERFORMANCE SPECIFICATIONS**

<b>S.No</b>	<b>Equipment Name</b>	<b>Required Specifications</b>
<b>I.</b>	<b>HPLC with Quaternary Gradient system and built-in degasser</b>	<ul style="list-style-type: none"><li>‣ Pump Specification:</li><li>‣ Flow rate range: (0.05-10.0 ml/min, in 0.01 ml increments)</li><li>‣ Dwell volume total system must be &lt;1150 ul (including Sample Management delay volume) – unlike other systems, this volume is independent of system pressure</li><li>‣ Method Linking: Automated System Shut Down</li><li>‣ Built in high efficiency, low volume, and vacuum degassing system with separate vacuum chambers for each solvent.</li><li>‣ Flow precision of <math>\leq 0.075\%</math> RSD with flow accuracy of <math>\pm 1\%</math>.</li><li>‣ Compositional accuracy is <math>&lt;0.5\%</math> and compositional precision is <math>&lt;0.5\%</math>, both measured at 1 ml/min.</li><li>‣ An automated software assisted purge function required for ease of solvent changing and system purging/priming.</li><li>‣ Operates at pressures up to 350 bar or better</li><li>‣ Integrated Automatic Seals &amp; Plunger's Wash System</li><li>‣ Sample Manager Specification:</li><li>‣ Automatic routines for adding, mixing and injecting derivative samples.</li><li>‣ Needle wash system that uses fresh solvent with each injection.</li><li>‣ Random access to any vial for multi-method operation.</li><li>‣ Programmable needle height control to help protect the needle from damage and allow greater flexibility when using advanced routines.</li><li>‣ All electric design for convenience and reliability.</li></ul>

S.No	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>‣ Precision is &lt;0.5% for injections from 5-80 ul. Linearity is &gt;0.999 coefficient of deviation from 1-100 ul. Carryover is &lt;0.01% from previous injection (Caffeine).</li> <li>‣ Injection should 0.1 to 2000 ul range with up to 99 injections per vial.</li> <li>‣ Sample capacity is 120 2ml vials. Limited volume inserts allow as little as 0.1ul from 7ul.</li> <li>‣ Events include 2 inject starts, inject stop and programmable contact closure.</li> <li>‣ Optional temperature control module is available for controlling the sample Temperature compartment between 4 and 40°C in 1° increments.</li> <li>‣ Column Compartment Specification:</li> <li>‣ Able to mount 300 MM Length of Column</li> <li>‣ Should able to fix 2 column at a time</li> <li>‣ Column Heating Ambient to 60 °C.</li> <li>‣ Bottle Tray:</li> <li>‣ The Separations Module solvent tray with solvent management. This tray provides the capability to locate the detector directly above the column heater/cooler thus minimizing ambient temperature effects upon column to detector flow cell tubing. The solvent tray and detector drip tray accessory kit incorporate design features for improved tubing management. This kit supports all refreshed HPLC detectors. The detector base shall include an integrated leak management scheme. Solvent bottle configurations can be up to (2) 4-Liter bottles, and (4) 1-Liter bottles.</li> <li>‣</li> <li>‣ UV-VIS Detector Specification:</li> <li>‣ Noise: &lt;5µAU (single channel)</li> </ul>

S.No	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>‣ Wavelength rationing capability, with absorbance threshold control, for real time &lt;12μAU (dual channel)</li> <li>‣ Detector linear to 2.5 AU</li> <li>‣ Fixed slit width</li> <li>‣ Maintains good linearity and optical resolution to 4 AU peak purity evaluation.</li> <li>‣ Absorbance range: Also, can be effectively increased to ≥13 AU with optional variable path length or semi-prep flow cell</li> <li>‣ Operate in single or dual wavelength mode</li> <li>‣ Instrument specifications: Range: 190-700 nm</li> <li>‣ Bandwidth: 5 nm</li> <li>‣ Guarantees low noise performance in visible range to 700nm without lamp change and compensates for lamp degradation over time.</li> <li>‣ Thermal Wander Management</li> <li>‣ ≤20μAU/°C/hour</li> <li>‣ Accuracy: ±1 nm</li> <li>‣ Reproducibility: ±0.1 nm</li> <li>‣ Measurement Range: 0.0001 to 4.0000 AU</li> <li>‣ Programmable 2000-hour lamp on/off and 20μAU/ front panel lamp operation hours.</li> <li>‣ Mitigation of thermal wander as caused by ambient temperature fluctuations</li> <li>‣ Narrow cone flow cell design for sharp &amp; better peak shape</li> <li>‣ Renders detector insensitive to changes in refractive index due to composition, display.</li> </ul>

S.No	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>‣ Automatic 2nd order filter to accommodate Performance in Visible Range to 700nm Without Lamp Change.</li> <li>‣ Integral cuvette holder can be used for scanning sample and for detector performance verification.</li> <li>‣ Ethernet capability.</li> <li>‣ Detector must have option to fit sample cuvette for direct UV measurement of samples.</li> </ul> <p><b>PDA Detector Specifications:</b></p> <ul style="list-style-type: none"> <li>‣ Low noise sensitivity = &lt;10 <math>\mu</math>AU</li> <li>‣ 190-800 nm with 1.2 nm bandwidth and optical resolution.</li> <li>‣ Spectral exposure optimization to maximize signal-to-noise across the entire wavelength range with a single deuterium lamp</li> <li>‣ Wavelength accuracy <math>\pm 1</math> nm</li> <li>‣ Flexible sampling rates for normal and fast LC separations from 1 to 80 Hz</li> <li>‣ Photodiodes not more than 512 to reduce noise.</li> <li>‣ Independent optimization of data rate and time constant.</li> <li>‣ Cone type flow cell</li> <li>‣ Lamp optimization through Software, ensures the same light energy output for the entire life of the detector lamp</li> <li>‣ Detector can run via software as a single wavelength, multi-wavelength or spectral detector.</li> <li>‣ Specialized routines such as max plot, purity determinations and spectral libraries.</li> <li>‣ Collect 8 channels of 2D data at user defined bandwidth for user optimization of 2D detection.</li> <li>‣ Detector must have nitrogen purging capabilities to remove contamination from optics.</li> </ul>

S.No	Equipment Name	Required Specifications
		<p><b>Controlling Software:</b></p> <ul style="list-style-type: none"> <li>▶ Must be 21CFR Part 11 Compliant</li> <li>▶ Eliminate the needs for manual record keeping</li> <li>▶ Maintain compliance and security requirements.</li> <li>▶ Improve information management, storage, and data mining capabilities.</li> <li>▶ Refine process with method developments and validation management tools.</li> <li>▶ Software should have a Size of Database for Recovery in any accidental loss of Computer Hardware.</li> <li>▶ Able to Signoff Results Electronically</li> </ul> <p><b>Additional Requirements:</b></p> <ul style="list-style-type: none"> <li>▶ Latest Computer System for HPLC Machine Handling Core i5 or Better Latest Generation, 8Gb Ram or better, 1TB Disk Space or better. 21" LED &amp; Laser Jet Printer.</li> <li>▶ C18 Column 4.6X250 mm, 5um (OR as per application requirement) Vendor must perform IQ/OQ of Software and Hardware.</li> <li>▶ Warranty should be 5 Years from Date of Installation Including parts and labor. 3 years with parts and 2 years with maintenance service</li> <li>▶ Complete system with Filtration assembly and Vacuum Pump</li> <li>▶ Local/abroad training of the technical personnel/staff</li> <li>▶ Certification: US FDA/ JIS /CE</li> </ul>
2.	Polarimeter Digital	<b>Details Specifications:</b>

S.No	Equipment Name	Required Specifications												
		<div><div><div>▶ High Precision</div><div>▶ Up to 3.0 OD measurement</div><div>▶ Tube lengths up to 200mm</div><div>▶ High-definition full color display</div><div>▶ US/EP/BP/JP compliant Technical Specification</div><div>▶ Specifications Angular (°A) ISS (°Z)</div><div>▶ Range: (-355 to +355, −225 to +225)</div><div>▶ Resolution: 0.01/0.001 (selectable)</div><div>▶ Accuracy: ± 0.010 ±0.030</div><div>▶ User Scales &amp; Methods Library PHR-MEAN statistical, Specific Rotation, Concentration, Inversion (A-B), Invert Sugar and User Defined</div><div>▶ Reading Time: Continuous measurement and display or single shot (selectable)</div><div>▶ Tube Length: 10 to 200mm</div></div><table><tr><td>Beam Diameter</td><td>4mm</td></tr><tr><td>Optical Density</td><td>0.0 to 3.0 OD</td></tr><tr><td>Measuring Range</td><td>5-40 °C</td></tr><tr><td>Sensor Accuracy</td><td>± 0.1 °C</td></tr><tr><td>Compensation</td><td>None, ICUMSA, Quartz or User Defined</td></tr><tr><td>Instrument Housing</td><td>Polyurethane foam with aluminum base</td></tr></table></div>	Beam Diameter	4mm	Optical Density	0.0 to 3.0 OD	Measuring Range	5-40 °C	Sensor Accuracy	± 0.1 °C	Compensation	None, ICUMSA, Quartz or User Defined	Instrument Housing	Polyurethane foam with aluminum base
Beam Diameter	4mm													
Optical Density	0.0 to 3.0 OD													
Measuring Range	5-40 °C													
Sensor Accuracy	± 0.1 °C													
Compensation	None, ICUMSA, Quartz or User Defined													
Instrument Housing	Polyurethane foam with aluminum base													



S.No	Equipment Name	Required Specifications			
3.	COLUMNS for HPLC	Column	Length (cm)	Diameter (nm)	Qty
		L1/C18: 5 um, Endcapped	15	4.6	4
		L1/C18: 5 um, Endcapped	25	4.6	4
		L7/C8: 5 um, Endcapped	15	4.6	4
		L7/C8: 5 um, Encapped	25	4.6	4
		L3, 5 um, Encapped	15	4.6	1
		L3, 5 um, Encapped	25	4.6	1
		L29, 5 um, Encapped	15	4.6	1
		L29, 5 um, Encapped	25	4.6	1
		Certification US FDA/ JIS /CE			
4.	FTNIR	<b>General Hardware Specification:</b> <ol style="list-style-type: none"> <li>1. The FT-NIR spectrometer optics must be able to be controlled by a laptop computer.</li> <li>2. Communication between the spectrometer and controlling PC must be performed using an Ethernet protocol.</li> <li>3. The optical bench must support optionally up to 5 computer controlled internal measurement channels for different applications.</li> <li>4. Spectrometer components like source, laser, detector, interferometer and automation units must be continuously monitored for operation within factory specifications ("Diagnosis"). The operator must be immediately notified by system software if any of the factory specifications are not met. The software must offer detailed information about the nature of the failure and suggest possible remedy.</li> <li>5. The system must incorporate automated internal instrument validation unit. The internal validation unit must be able to incorporate 5 different reference standards and be fully software controlled. The unit must have standards to test for instrument wavelength (X-axis) and photometric (Y-axis)</li> </ol>			

S.No	Equipment Name	Required Specifications
		<p>accuracy and precision. This instrument performance verification must not require user interaction and must produce a report documenting the results of the performance verification tests.</p> <ol style="list-style-type: none"> <li>6. The control panel on the front of the spectrometer must indicate the proper function of the system, based on the diagnosis and the valid instrument performance verification of the active measurement channel.</li> <li>7. The control panel on the front of the spectrometer must warn against exceeding the permitted internal humidity.</li> <li>8. The instrument spectral resolution should be continuously variable to maximum optical retardation of at least 0.3nm at 1,250nm (2cm-1), apodized.</li> <li>9. The wavenumber accuracy must be better than 0.1cm-1, the wavenumber repeatability (RMS) better than 0.006cm-1 and the photometric accuracy better than 0.1% transmission to lay the foundations for a successful calibration transfer.</li> <li>10. The FT-NIR spectrometer must incorporate a high throughput 60-degree interferometer and gold coated optics for maximum light throughput.</li> <li>11. The interferometer must be permanently aligned. Interferometer designs that require alignment (either manual or automatic) are not acceptable.</li> <li>12. The interferometer should be capable of acquiring data in both scanning directions to ensure the maximum signal-to-noise ratio in the shortest possible time.</li> <li>13. The interferometer bearing mechanism must be wear-free (frictionless) designed to ensure unlimited lifetime. Bearings with wear are not acceptable as they require frequent maintenance and costly exchange.</li> <li>14. The interferometer must utilize retro-reflecting cube corners for instantaneous correction of instability due to mirror tilt.</li> <li>15. The spectrometer must be able to support thermoelectrically stabilized or cooled detectors.</li> </ol>

S.No	Equipment Name	Required Specifications
		<p>16. The systems A/D converter must have a 24bit dynamic range for accurate representation of spectra and best signal to noise.</p> <p>17. The system must have a broad range power supply with the following specifications for worldwide operation: 100 - 240V AC, 50 - 60Hz.</p> <p>18. The system must be a class I Laser product for maximum user safety.</p> <p>19. The Laser must have a minimum lifetime of 10 years.</p> <p>20. To protect the interferometer components, the interferometer compartment must be physically sealed and desiccated. Sealing should be done with an easily replaceable Quartz isolation window. The humidity status must be indicated on the control panel on the front of the instrument.</p> <p>21. The desiccant cartridge must be easily user replaceable.</p> <p>22. The system delivery must include a replacement desiccant.</p> <p>23. To meet future measurement requirements the FT-NIR system must be available to provide the following NIR sampling accessories:</p> <ul style="list-style-type: none"> <li>a) Sample compartment for the measurement of liquids in transmission</li> <li>b) Integrating sphere with rotating sample cup for reflection measurements of inhomogeneous samples or samples with large particle size.</li> <li>c) Fiber optics coupling, up to 2 positions, for liquid &amp; solids probes with integrated trigger &amp; status lights.</li> <li>d) "Tablet Transmission" device for the measurement of highly scattering samples.</li> <li>e) Sample changer with up to 99 positions (standard: 30+1 positions) for automated reflection and "Tablet Transmission" measurements.</li> <li>f) Fully OPUS controlled coupling to an external sampling system (LSM; IN606) for the measurement of liquid samples.</li> </ul> <p><b>Specifications for the "Classic Transmission" Measurement Channel:</b></p>

S.No	Equipment Name	Required Specifications
		<ol style="list-style-type: none"> <li>1. The sampling device (“sample compartment”) should consist in an open slot with access from the top and a software-controlled accessible background position.</li> <li>2. Reduction inserts must allow the use of various round shaped disposable vials (up to 27mm diameter) and rectangular cuvettes.</li> <li>3. The sampling slot must be heat able from ambient temperature to 120°C.</li> <li>4. The sample compartment must be exchangeable.</li> <li>5. The standard spectral operating range should be not less than 870 – 2,500nm (11,500 – 4,000cm<sup>-1</sup>).</li> <li>6. The standard detector must be a thermoelectrically cooled InGaAs detector.</li> <li>7. The near infrared detector must have an integrated A/D converter. Separated ADC are not accepted due to possible disturbances of the analog signal along the signal path from the detector to the ADC.</li> <li>8. The maximum noise for a 5 second 100%-line measurement should be less than 1x10<sup>-5</sup> AU noise RMS using the following conditions: <ol style="list-style-type: none"> <li>a) 8cm<sup>-1</sup> spectral resolution</li> </ol> </li> <li>9. Blackman Harris 3-Term apodization</li> <li>10. InGaAs detector (thermoelectrically cooled)</li> <li>11. Quartz beam splitter and air-cooled tungsten source</li> <li>12. Noise calculated from 6,100 – 5,600cm<sup>-1</sup></li> <li>13. Specifications for other measurement channels (as far as they differ from the general hardware specifications above)</li> <li>14. A. “Reflection” measurement channel (integrating sphere)</li> </ol>

S.No	Equipment Name	Required Specifications
		<p>15. The regular measurement spot must have a diameter of at least 12mm.</p> <p>16. A second measurement spot for very small samples (e.g. single seeds) must have a diameter of about 2.5mm.</p> <p>17. The integrating sphere must have an internal background measurement position, which is accessible under software control.</p> <p>18. Sample spinners for the enlargement (5 times, 15 times, 100 times) of the effective measured sample surface must be optionally available.</p> <p>19. An automatic sample changer must be optionally available. The standard sample changer wheel shall have 30+1 positions (for vials with 22mm diameter or standard tablet sample cups), or customized with up to 99 positions.</p> <p>20. The standard spectral operating range should be not less than 870 – 2,500nm (11,500 – 4,000cm<sup>-1</sup>).</p> <p>21. The standard detector must be a thermoelectrically cooled InGaAs detector</p> <p>22. The near infrared detector must have an integrated A/D converter. Separated ADC are not accepted due to possible disturbances of the analog signal along the signal path from the detector to the ADC.</p> <p>23. The maximum noise for a 5 second 100%-line measurement should be less than 1x10<sup>-5</sup> AU noise RMS using the following conditions:</p> <p>24. 8cm<sup>-1</sup> spectral resolution</p> <p>25. Blackman Harris 3-Term apodization</p> <p>26. InGaAs detector (thermoelectrically cooled)</p> <p>27. Quartz beam splitter and air-cooled tungsten source</p> <p>28. Noise calculated from 6,100 – 5,600 cm<sup>-1</sup></p>

S.No	Equipment Name	Required Specifications
		<p><b>B. “Fiber Optics” Measurement Channel:</b></p> <ol style="list-style-type: none"> <li>1. The spectrometer must optionally offer fiber optics coupling for up to 2 computer-controlled positions.</li> <li>2. BQC connectors must allow the robust attachment of liquid &amp; solids probes with integrated trigger &amp; status lights.</li> <li>3. The spectrometer must have storage for 2 laboratory probes. The storage must contain a “Reference Position” for acquiring background spectra in case of diffuse reflectance measurements.</li> <li>4. The optional use of probes for process applications having SMA connectors should be possible.</li> <li>5. The standard spectral operating range should be not less than 870 – 2,500nm (11,500 – 4,000cm<sup>-1</sup>).</li> <li>6. The standard detector must be a thermoelectrically cooled InGaAs detector.</li> <li>7. The near infrared detector must have an integrated A/D converter. Separated ADC are not accepted due to possible disturbances of the analog signal along the signal path from the detector to the ADC.</li> <li>8. The maximum noise for a 5 second 100%-line measurement should be less than 1x10<sup>-5</sup> AU noise RMS using the following conditions: <ol style="list-style-type: none"> <li>a) 8cm<sup>-1</sup> spectral resolution</li> <li>b) Blackman Harris 3-Term apodization</li> <li>c) InGaAs detector (thermoelectrically cooled)</li> <li>d) Quartz beam splitter and air-cooled tungsten source</li> <li>e) Noise calculated from 6,100 – 5,600cm<sup>-1</sup></li> </ol> </li> </ol> <p><b>C. “Tablet Transmission” Measurement Channel</b></p> <ol style="list-style-type: none"> <li>1. The NIR spectrometer must allow single transmission measurements of highly scattering samples like pharmaceutical tablets.</li> </ol>

S.No	Equipment Name	Required Specifications
		<ol style="list-style-type: none"> <li>2. The regular measurement spot must have a diameter at least of 2.5mm.</li> <li>3. The system should have an internal attenuator to allow the background measurement without any external material.</li> <li>4. It must be an option to measure the samples in the same position alternatively in reflection (3.I. is needed).</li> <li>5. An automatic sample changer must be optionally available. The sample changer wheel shall have 30+1 positions for standard tablet sample cups.</li> <li>6. Universal variable diameter sample cups for round tablets and customized sample cups for tablets with different shapes must be available.</li> <li>7. The standard spectral operating range should be not less than 870 – 1,725nm (11,500 – 5,800cm<sup>-1</sup>).</li> <li>8. The standard detector must be an InGaAs detector</li> <li>9. The maximum noise for a 5 second 100%-line measurement should be less than 3x10<sup>-6</sup> AU noise RMS using the following conditions: <ol style="list-style-type: none"> <li>a) 16cm<sup>-1</sup> spectral resolution</li> <li>b) Blackman Harris 3-Term apodization</li> <li>c) InGaAs detector</li> <li>d) Quartz beam splitter and air-cooled tungsten source</li> <li>e) Noise calculated from 6,700 – 6,200cm<sup>-1</sup></li> </ol> </li> </ol> <p><b>D. Spectroscopic software specifications</b></p> <ol style="list-style-type: none"> <li>1. The software must be validated.</li> <li>2. The software must be compliant to cGMP, to 21 CFR part 11 and all current guidelines.</li> <li>3. The software must be an "all-in-one" software for data measurement, manipulation and evaluation.</li> <li>4. The software must offer optional packages for dedicated applications:</li> </ol>

S.No	Equipment Name	Required Specifications
		<p>a) Quantification of substances using PLS algorithm. The quantification software package must have self-optimizing calibration models.</p> <p>b) Identification of substances and substance classes. The identification software package must include cluster analysis and an unlimited number of hierarchical structured libraries.</p> <p>5. Dedicated user interfaces like OPUS/LAB must allow single and sample changer based routine measurements with predefined measurement parameters, qualitative and quantitative evaluations, storage conditions and GMP compliant reports. Local/abroad training of the technical personnel/staff</p> <p>6. Certification: US FDA/ JIS /CE</p>
5.	<b>Double Beam Spectrophotometer (PC based with complete Software and Full Data Integrity)</b>	<ul style="list-style-type: none"> <li>➤ Wavelength range: 190 to 1,100 nm</li> <li>➤ Spectral bandwidth: 1 nm (190 to 1,100 nm)</li> <li>➤ Wavelength display: 0.1 nm increments</li> <li>➤ Wavelength setting: 0.1 nm increments</li> <li>➤ Wavelength accuracy: <math>\pm 0.1</math> nm at D2 peak 656.1 nm, <math>\pm 0.3</math> nm for entire range</li> <li>➤ Wavelength repeatability: <math>\pm 0.1</math> nm</li> <li>➤ Wavelength slew rate: Approx. 29,000 nm/min</li> <li>➤ Wavelength scanning speed: 3,000 to 2 nm/min, 29,000 nm/min when survey scanning</li> <li>➤ Stray light: Less than 0.02% at 220 nm NaI</li> <li>➤ Photometric system: Double beam optics</li> <li>➤ Photometric range: Absorbance: -4 to 4 Abs, Transmittance: 0% to 400%</li> <li>➤ Photometric accuracy: <math>\pm 0.002</math> Abs at 0.5 Abs, <math>\pm 0.004</math> Abs at 1.0 Abs, <math>\pm 0.006</math> Abs at 2.0 Abs</li> <li>➤ Photometric repeatability: Less than <math>\pm 0.0002</math> Abs, Less than <math>\pm 0.001</math> Abs at 2 Abs</li> <li>➤ Baseline stability: Less than 0.0003 Abs/Hr</li> <li>➤ Baseline flatness: Less than <math>\pm 0.0006</math> Abs (1,100 to 190nm,</li> <li>➤ Noise level: Less than 0.00005 Abs (700 nm)</li> <li>➤ Light source: 20-W halogen lamp and deuterium lamp</li> <li>➤ Built-in light source auto position adjustment.</li> <li>➤ Detector: Silicon photodiode</li> </ul>



S.No	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>▶ Grating: LO-RAY-LIGH diffraction grating technology.</li> <li>▶ Power requirements: AC 100,120,220,230,240 V, 50/60 Hz, 140 VA</li> <li>▶ Display: 24-bit color touch screen</li> <li>▶ With one extra deuterium lamp for UV range</li> <li>▶ Local/abroad training of the technical personnel/staff;</li> <li>▶ Certification: US FDA/ JIS /CE</li> </ul>
6.	LAL Test Kit For Endotoxin	<p><b>Reagents And Consumables for Qualitative Analysis</b></p> <p><b>Digital Water Bath</b></p> <ul style="list-style-type: none"> <li>▶ Microprocessor PID Control for 0.1°C Precision</li> <li>▶ Timer, Alarm, Auto-Tuning Function</li> <li>▶ Seamless Stainless-Steel Bath (SUS304)</li> <li>▶ Dimensions (W x D x H mm): Inner 500 x 295 x 150 Outer 537 x 327 x 280 Capacity: 22 Liter</li> <li>▶ Temperature Range: Set: Ambient +5°C to 99°C, Accuracy: ±0.1°C, Uniformity: ±1.0°C Heater: 1400W</li> <li>▶ Manufacturer: Korea/USA/Europe</li> </ul> <p><b>Lysate for Qualitative Analysis</b></p> <p><b>Amebocytes Extracts from Horse shoe crab Limulus Polyphemus</b></p> <ul style="list-style-type: none"> <li>▶ Multi-test Vial for Endotoxin Testing</li> <li>▶ 96 Reactions/Vial</li> <li>▶ Sensitivity: 0.001 EU/ml</li> <li>▶ Storage life after reconstitution should be more than 02 Months.</li> <li>▶ Expiry: More than 70%.</li> </ul>

S.No	Equipment Name	Required Specifications
		<p>‣ Certificate of Compliance and Certificate of Analysis with online traceability is must</p> <p><b>Control Standard Endotoxin</b></p> <p>‣ purified extract of E. coli O113:H10</p> <p>‣ Volume: 0.5ng/vial</p> <p>‣ Expiry: More than 70%</p> <p>‣ Certificate of Compliance and Certificate of Analysis with online traceability with quoted lysate is must</p> <p><b>LAL Reagent Water</b></p> <p>‣ &lt;0.001 EU/ml &lt;1.56 pg/mL glucan</p> <p>‣ Pack size: 1000 ml plastic bottle</p> <p>‣ Expiry: More than 70%</p> <p>‣ Certificate of Compliance with online traceability is must</p> <p><b>Depyrogenated Tips</b></p> <p>‣ 250 µL Precision Pipette Tips certified free of interfering endotoxins and glucans Pack size: 96 Tips/Box</p> <p>‣ Certificate of Compliance with online traceability is must</p> <p><b>Depyrogenated Tips</b></p>

S.No	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>▶ 1000 µL Precision Pipette Tips certified free of interfering endotoxins and glucans Pack size: 96 Tips/Box</li> <li>▶ Certificate of Compliance with online traceability is must</li> <li>▶ Reaction Tubes</li> <li>▶ Size: 8 x 75 mm (Compatible size with Kinetic Tube Reader)</li> <li>▶ Material: Borosilicate glass</li> <li>▶ Pack Size: 50 tubes/pack</li> <li>▶ Certificate of Compliance with online traceability is must</li> </ul> <p><b>Dilution Tubes</b></p> <ul style="list-style-type: none"> <li>▶ 16 x 90 mm depyrogenation heat stable Borosilicate glass tubes with Aluminum Caps Pack Size: 65 tubes/pack.</li> <li>▶ Certificate of Compliance with online traceability is must</li> <li>▶ Certification: US FDA/ JIS /CE</li> </ul>
7.	Lab Water Distillation	<p><b>Water Double Distillation Apparatus</b></p> <p><b>Technical data</b></p> <ul style="list-style-type: none"> <li>▶ Ambient temperature min: 10 °C</li> <li>▶ Ambient temperature max: 40 °C</li> <li>▶ Distillation type: Double</li> <li>▶ Material: Stainless steel/glass</li> <li>▶ Production output: 4 L/h</li> <li>▶ Conductivity at 25 °C: 2.2 µS/cm</li> <li>▶ Cooling water flow rate: 2.0 L/min</li> <li>▶ Operated on 220 Volts with standard warranty of manufacturer.</li> </ul>

S.No	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>▶ Certification: US FDA/ JIS /CE</li> </ul>
8.	Reference Standards	<ul style="list-style-type: none"> <li>▶ Primary reference standards as per requirements of the official Monographs (USP/BP)</li> <li>▶ Certification: US FDA/ JIS /CE</li> </ul>
9.	POLARIMETER DIGITAL	<p><b>Details specifications</b></p> <ul style="list-style-type: none"> <li>• High Precision</li> <li>• Up to 3.0 OD measurement</li> <li>• Tube lengths up to 200mm</li> <li>• High definition full color display</li> <li>• US/EP/BP/JP compliant</li> </ul> <p><b><u>Technical Specification</u></b></p> <p><b>Specifications      Angular (°A) ISS (°Z)</b>  Range -355 to +355    -225 to +225  Resolution    0.01/0.001 (selectable)  Accuracy      ± 0.010          ±0.030</p> <p><b>User Scales &amp; Methods Library</b> PHR-MEAN statistical, Specific Rotation, Concentration, Inversion (A-B), Invert Sugar and User Defined</p> <p><b>Reading Time</b>                      Continuous measurement and display or single shot (selectable)</p> <p><b>Tube Length</b>                              10 to 200mm</p> <p><b>Beam Diameter</b>                            4mm</p> <p><b>Optical Density</b>                            0.0 to 3.0 OD</p> <p><b>Measuring Range</b>                            5-40 °C</p> <p><b>Sensor Accuracy</b>                            ± 0.1 °C</p> <p><b>Compensation</b>                            None, ICUMSA, Quartz or User Defined</p> <p><b>Instrument Housing</b>                            Polyurethane foam with aluminum base</p> <p><b>Interfaces</b>                                    1 x USB (A), 1 x USB (B), 1 x Ethernet</p> <p>Operated on 220Volts Complete with Tube</p>

S.No	Equipment Name	Required Specifications
		▶ Certification US FDA/ JIS /CE
10.	Automatic Soxhlet System	▶ Max. Temperature [°C] 425 ▶ Heating places 6 ▶ Size of flasks [ml] 250, 500 ▶ Must have Quality Certification
11.	Sulphur-di-oxide Apparatus	Range: 0-10 ppm or better, 0-25 mg/m <sup>3</sup>  Extended Ranges: 0-100 ppm, 0-250 mg/m <sup>3</sup>  Detection Limit: 2 ppb (10 second averaging time), 1 ppb (60 second averaging time), 0.25 ppb (300 second averaging time)  Zero Drift: <0.5 ppb (24 hour)  Span Drift: ±0.5% full-scale (24 hour)  Response Time:  60 sec (10 second averaging time)  110 sec (60 second averaging time)  320 sec (300 second averaging time)  Interferences (EPA levels) Less than lower detectable limit except for the following:  NO < 3 ppb, M-Xylene < 1ppb, H <sub>2</sub> O < 3% of reading

S.No	Equipment Name	Required Specifications
		Must have Quality Certification
12.	Flame Photometer	<p>Large LCD touch screen display for ease of accessibility, Correlation coefficient with automated calculative function, Equipped with an air compressor for stable flow rate of air during flammation, USB interface</p> <p>Elements detected: K, Na, Li, Ca</p> <p>Sensitivity: K- 0.01 ppm</p> <ul style="list-style-type: none"> <li>Na- 0.01 ppm</li> <li>Li- 0.1 ppm</li> <li>Ca- 2 ppm</li> </ul> <p>Range: K- 0 ppm ~ 100 ppm</p> <ul style="list-style-type: none"> <li>Na- 0 ppm ~ 160 ppm</li> <li>Li- 0 ppm ~ 100 ppm</li> <li>Ca- 0 ppm ~ 1000 ppm</li> </ul> <p>Method detection limit: K- <math>\leq 0.156</math> ppm</p> <ul style="list-style-type: none"> <li>Na- <math>\leq 0.184</math> ppm</li> <li>Li- <math>\leq 0.105</math> ppm</li> <li>Ca- <math>\leq 2</math> ppm</li> </ul> <p>Linearity: K- 0.195 ppm (0.39 ppm ~ 3.12 ppm)</p> <ul style="list-style-type: none"> <li>Na- 0.69 ppm (1.15 ppm ~ 9.2 ppm)</li> </ul>

S.No	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>Li- 0.15 ppm (0.25 ppm ~ 5 ppm)</li> <li>Ca- 3 ppm (5 ppm ~ 100 ppm)</li> </ul> <p>Sample uptake: &lt; 6 mL/min</p> <p>Repeatability 1% CV for 20 consecutive samples</p> <p>Response time &lt; 8s</p> <p>Must have Quality Certification</p>
13.	<b>Nitrogen Distillation Unit (Kjeltec complete unit)</b>	<p>Digestion Block: Six places, simultaneously digestion, Programming through console, increases of Temperature controlled with microprocessor. Temperature range ambient to 420 - 450°C, Setting of heating time 120 minutes, automatic Switch off, possibility to program upto 4, Increases of temperature and twice of permanence each of them. Including digestion tube set</p> <p>RECOMMENDED FOR ABOVE</p> <ol style="list-style-type: none"> <li>Recirculating Water Vacuum Pump type JP, Innovative recirculating water vacuum pump that allows selecting the flow up to 35 l/min to optimize the Functioning according to the different applications.</li> <li>The structure manufactured from polypropylene and ABS gives a high resistance to chemical aggression.</li> <li>The unit is designed for all the uses which require a non-pulsating suction; typical examples are rotating evaporators, vacuum filtrations etc. when coupled to a Scrubber type SMS allows a very effective removal of fumes evolved during acid mineralization</li> </ol>

S.No	Equipment Name	Required Specifications
		<p>iv. Scrubber Model SMS is designed to neutralize corrosive and Toxic Fumes that develop during oxidative mineralization's. This is a highly efficient neutralization due to the optimized gas liquid contact, used for both basic and acid neutralization.</p> <p>v. Kjeldahl's Distillation Apparatus with Builtin Titanium Condensor</p> <p><b>Technical Specifications:</b></p> <p>Steam Generator uses Deionised Water and is Maintenance Free, Digital LCD Display,</p> <p>Automatic Sodium Hydroxide addition, manual Distillation residues removal, Manual dilution Water addition, Manual Boric Acid addition.</p> <p>Measuring Range mg N      0.1 to 200 or better</p> <p>Reproducibility                      1%</p> <p>Recovery      99.5% at Nitrogen Levels between 1-200 mg N</p> <p>Detection Limit                      0.1mg N</p> <p>Distillation time                      5 minutes to collect 100ml Distillate</p> <p>Sodium Hydroxide                      Volume 0-100ml</p> <p>Tap water Consumption      0.5l/min at 15 degree C, 1litre/m at 30°C</p> <p>Time related to start              0-99 minutes, Alloy Analysis</p> <p>Complete with all standard Accessories with Instruction Manual</p>



S.No	Equipment Name	Required Specifications
		Must have Quality Certification
14.	Digestion block	<p>High sample capacity - up to 50 samples at a time</p> <p>Multiple programs - up to 20 different digestion procedures.</p> <p>Unattended operation</p> <p>Precise Temperature Control +/- 2 deg C of set temperature.</p> <p>Electronically stored methods – consistent performance from batch-to-batch</p> <p>Specifications</p> <p>Capacity (tubes)</p> <p>50 x 75      28 x 250 ml</p> <p>50 x 100ml</p> <p>Temperature range</p> <p>Ambient to 450°C</p> <p>Set point accuracy ±2°C</p>

S.No	Equipment Name	Required Specifications										
		Must have Quality Certification										
15.	Amino acid analyzer	<p>Complete solution for fast, sensitive, and automated 23 amino acid analysis, including instruments, columns, chemicals, standards, and application support Automated precolumn derivatization for increased efficiency and reproducibility without tedious manual procedures.</p> <p>Columns for robust separations with enhanced resolution and higher throughput at reduced backpressure Simultaneous, high-sensitivity, multiwavelength UV detection based on diode array technology for uncompromised sensitivity Multisignal fluorescence detection for improved selectivity and reduced matrix effects delivering superior sensitivity in the femtomole range</p> <p><b>System Specs.</b></p> <p><b>Pump</b></p> <table><tr><th>Specification</th><th>Description</th></tr><tr><td>Delay volume</td><td>Must have as low as possible gradient delay volume of the pump = 350 µL</td></tr><tr><td>Flow precision</td><td>≤0.07% RSD or ≤0.01 min SD, whatever is greater</td></tr><tr><td>Composition precision</td><td>≤0.15% RSD or ≤0.02 min SD, whatever is greater</td></tr><tr><td>Hydraulic system</td><td>Dual pistons in series</td></tr></table>	Specification	Description	Delay volume	Must have as low as possible gradient delay volume of the pump = 350 µL	Flow precision	≤0.07% RSD or ≤0.01 min SD, whatever is greater	Composition precision	≤0.15% RSD or ≤0.02 min SD, whatever is greater	Hydraulic system	Dual pistons in series
Specification	Description											
Delay volume	Must have as low as possible gradient delay volume of the pump = 350 µL											
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Composition precision	≤0.15% RSD or ≤0.02 min SD, whatever is greater											
Hydraulic system	Dual pistons in series											

S.No	Equipment Name	Required Specifications	
		Maximum flow rate	Must deliver a flow rate of up to 5mL/min.
		Operation pressure range	Must have operating range up to 75 Mpa or above (750 bar or above) at 5 ml/min
		Number of solvent channels	Number of channels must be 4
		pH range	Must have a pH range 1.0 — 12.5
		<b>Auto sampler</b>	
		<b>Specification</b>	<b>Description</b>
		Capacity & Sample thermostat	Various and scalable drawer types from 2-16 well plates all within the LC-stack footprint Capability to Cool and to heat. Temperature range is 4C upto 40C
		Carryover	9 ppm using Multi-wash option
		Cycle Time	10 seconds Injection cycle time for Single-Needle instrument
		injection volume range	0.1 to 900µL or 1800 µL by seat loop extension
		Dual-needle option	2 independ flow paths and delay volumes
		Dual-needle option	Large and small sample loop volumes without HW change
		Linearity	By Dual-needle option from 0.1 to 500 µL $R^2 = 0.9999$

S.No	Equipment Name	Required Specifications	
		<b>Thermo stated column compartment</b>	
		Combined specification	up to four columns with 30 cm length and a temperature range from 10°C below ambient to 85°C
		Column identification module	Must offer an automatic column-identification module as standard for GLP documentation of column type, and major column parameters
		independent temperature zones	at least two independent temperature zones required
		Temperature accuracy	Temperature accuracy must be $\pm 0.8$ °C or $\pm 0.5$ °C with calibration
		Column dimensions	Columns of up to 30cm length must be supported
		Pre column heating and post column cooling	The module must enable pre column heating and post column cooling
		Temperature range	from 10°C below ambient to 85°C
		Temperature Precision	+/- 0.05 ° C
		<b>FLD</b>	
		Operating temperature	The temperature operating range of Instrument must be from 4°C to 40°C.

S.No	Equipment Name	Required Specifications	
		Spectrum acquisition “on the fly”	The detector must be able to acquire spectra (excitation or emission) during the analysis (no stop flow needed)
		Raman noise (noise reference measured at dark value 450 nm)	The instrument must have in single wavelength mode a Raman signal-to-noise of >3000, with Ex350nm/Em397nm and using the dark value at 450nm as reference point, water filled Standard flow cell.
		Raman noise in dual wavelength mode	Dual wavelength operation: Raman (H2O) > 300 Ex 350 nm, Em 397 nm and Ex 350 nm, Em 450 nm, standard flow cell
		Excitation and emission wavelength range	Excitation wavelength must be at least 200 – 1200 nm, Emission wavelength must be at least 280 – 1200 nm
		Lamp lifetime	Xenon flash lamp, normal mode (20 W), economy mode (5 W), lifetime 4000 hours.
		Flash lamp technology	The lamp can be switched on directly before the analysis because it needs no warm up time
		<b>DAD</b>	
		slit width	Programmable: 1, 2, 4, 8, 16 nm
		RFID tags	Radio Frequency Identification Tags for flow cells and UV lamp
		Number of signals	Simultaneous acquisition of up to 8 compounds specific wavelength

S.No	Equipment Name	Required Specifications	
		Linearity	> 2 AU (upper limit)
		Noise	< $\pm 0.7 \times 10^{-5}$ AU at 254 nm and at 750 nm (cell path length 10 mm, response time 2 s, flow 1 ml/min LC-grade)
		Wavelength range	Wavelength range must be at least 190-950 nm, settable in 1 nm increments
		Light source	Dual lamp design (tungsten and deuterium)
		Operating temperature	The temperature operating range of instrument must be from 4°C to 55°C.
		Maximum sampling rate	120 Hz
		Drift	Signal drift must be equal or smaller $0.9 \times 10^{-3}$ AU/h after adequate warm up.
		Detector type	1024-element diode array
		<p>Columns, supplies and chemicals</p> <p>AAA LC column 4.6 x 100 mm, 2.7 <math>\mu</math>m = 3Qty</p> <p>AAA guard columns 4.6 x 5 mm, 2.7 <math>\mu</math>m, 3/pk = 3Qty</p> <p>Borate Buffer 0.4 M in water, pH 10.2, 100 mL = 3Qty</p>	

S.No	Equipment Name	Required Specifications
		<p>Fmoc Reagent 2.5 mg/mL in ACN, 10 x 1 mL ampoules = 3Qty</p> <p>OPA Reagent 10 mg/mL in 0.4 M borate buffer and 3-mercaptopropionic acid, 6 x 1 mL ampoules</p> <p>Dithiodipropionic Acid (DTDPA) reagent 5 g = 3Qty</p> <p>Inserts, with polymer feet 250 µL, 100/pk = 3Qty</p> <p>Vial, screw top, amber with write-on spot 2 mL, certified Qty 03</p> <p>Cap, screw, green, PTFE/white silicone septum 100/pk Qty 03</p> <p>AA standard 1 nmol/µL, 10 x 1 mL = 2Qty</p> <p>AA standard 250 pmol, 10/pk = 2Qty</p> <p>AA standard 100 pmol/µL, 10 x 1 mL = 2Qty</p> <p>AA standard 25 pmol/µL, 10 x 1 mL = 2Qty</p> <p>AA standard 10 pmol/µL, 10 x 1 mL = 2Qty</p> <p>Amino acids supplement kit (including asparagine, hydroxyproline, glutamine, tryptophan) = 3Qty</p> <p>Computer with compatible HPLC software.</p> <p>Compatible UPS</p> <p>1 year preventive maintenance kits</p>

S.No	Equipment Name	Required Specifications
		Must have Quality Certification
16.	Autoclave Vertical	<p>Microprocessor Controlled Vertical Unit, Temperature Range 105 to 135° C Interior Chamber Stainless steel, capacity 60 Lit or above with Built in Timer 1 to 250 Minutes and Pressure Gauge 0 to 0.4 mpa, Selected Modes for Liquid and Solids and Agar Process, Complete with stainless Steel Baskets with following Features:</p> <ul style="list-style-type: none"> <li>a. Electromechanical Lock System.</li> <li>b. Dual Sensing Interlock mechanism.</li> <li>c. Pulse Sensing System for Air Exhaust.</li> <li>d. Programmable Auto start</li> <li>e. Process Status Display</li> <li>f. Over Pressure Cutoff. Over Temperature Cutoff</li> </ul> <p>Pressure Safety valve.</p> <p>Certificate: USFDA, JIS, CE, MDD</p>
17.	Binocular Microscope	<p>Body: Aluminum die-cast metal frame, protective plastic covering</p> <p>Optical System: Infinity optical system</p> <p>Illumination System: Built-in transmitted illumination system</p>



S.No	Equipment Name	Required Specifications
		<p>LED power consumption: 0.5 W (nominal value)</p> <p>Focusing: Stage height movement</p> <p>Coarse movement stroke: 15 mm</p> <p>Coarse adjustment limit stopper, Torque adjustment for coarse adjustment knob, Fine focus knob (minimum adjustment gradations: 2.5 <math>\mu\text{m}</math>)</p> <p>Revolving Nosepiece: Fixed quadruple nosepiece with inward</p> <p>Tilt Stage: Wire movement mechanical fixed stage</p> <p>Traveling range (X <math>\times</math> Y): 76 mm <math>\times</math> 30 mm</p> <p>Specimen holder: Specimen position scale</p> <p>Observation Tube: Binocular, anti-fungal</p> <p>Eyepiece (Antifungal): 10X Field Number 20</p> <p>Tube Inclination: 30°</p> <p>Light Path Selector: None</p> <p>Interpupillary distance adjusting range: 48-75mm</p> <p>Eye Point Adjustment: 370.0 – 432.9 mm</p>

S.No	Equipment Name	Required Specifications												
		<p>Condenser:</p> <p>Abbe condenser NA 1.25 with oil immersion</p> <p>Built-in aperture iris diaphragm</p> <p>Objectives:                      Plan Achromat, anti-fungal</p> <table> <tr> <td>4X</td><td>NA 0.1</td><td>W.D. 27.8 mm</td></tr> <tr> <td>10X</td><td>NA 0.25</td><td>W.D. 8.0 mm</td></tr> <tr> <td>40X</td><td>NA 0.65</td><td>W.D. 0.6 mm</td></tr> <tr> <td>100XOil</td><td>NA 1.25</td><td>W.D. 0.13 mm</td></tr> </table> <p>Technical Specs:</p> <p>Microscope frame for transmitted microscopy with LED illuminator, binocular tube, a pair of eyepiece 10X (F.N.20), quadruple revolving nosepiece, right-handle mechanical stage, abbe condenser and plan objectives (4X, 10X, 40X, 100X), including AC adapter, fixing belt for transportation</p> <p>Power Cord</p> <p>Must have Quality Certification</p>	4X	NA 0.1	W.D. 27.8 mm	10X	NA 0.25	W.D. 8.0 mm	40X	NA 0.65	W.D. 0.6 mm	100XOil	NA 1.25	W.D. 0.13 mm
4X	NA 0.1	W.D. 27.8 mm												
10X	NA 0.25	W.D. 8.0 mm												
40X	NA 0.65	W.D. 0.6 mm												
100XOil	NA 1.25	W.D. 0.13 mm												

S.No	Equipment Name	Required Specifications
18.	Bio Safety Cabinet Class II Type B2	Display 7 " GUI Electrical Requirements 230 V Filter Efficiency 1.0000 Filter Type H14 Hepa Hertz 50/60 Hz Lighting LED Certifications/Compliance EN 12469 Chamber Material Stainless Steel (316) Outlets 4 x Rear Wall Ports 2 x each side plus Smart Ports Sash Opening 7.8 in. Sash Opening (Metric) 200 mm Type Factory Acceptance Testing Documentation Must have Quality Certification

S.No	Equipment Name	Required Specifications
19.	BOD Incubator	<p>Range</p> <p>Selectable: 0 to 35, 0 to 70, 0 to 350, or 0 to 700 mg/L BOD (Biochemical Oxygen Demand)</p> <p>Capacity</p> <p>Six 492-mL bottles</p> <p>Precision</p> <p>For a standard containing 150 mg/L each of glucose and glutamic acid, testing 44 samples obtained a mean of 235 mg/L BOD with a 95% confidence limit of distribution of 11 mg/L (or arange of 224 to 246 mg/L BOD)</p> <p>Drift</p> <p>&lt; 3 mg/L BOD in 5 days</p> <p>Resolution</p> <p>1 mg/L BOD</p> <p>Operating Temperature</p> <p>20°C (68°F)</p> <p>Storage Temperature</p> <p>0 to 40°C (104°F)</p>

S.No	Equipment Name	Required Specifications
		<p>BOD Incubator</p> <p>The TC series of thermostatically controlled cabinets is used for continuous temperature control over a range of 2 °C to 40 °C. This makes them ideal for a wide range of different applications in industrial and research laboratories. In particular they are ideal for the temperature-controlled storage of samples or BOD determination in effluent analysis work.</p> <p>The temperature can be set in steps of 0.1 °C and an LED display shows both the set temperature and the current temperature in the cabinets.</p> <p>Must have Quality Certification</p>
20.	Aflatoxin	<p>Combined incubator and reader making quick work of antibiotic and Aflatoxin</p> <p>Is a combined incubator and reader in one system</p> <p>Is fully customizable to meet facility's needs. Use to incubate and read tests; or, to perform batch testing, incubate separately and read results.</p> <p>Will self-diagnosis common errors</p> <p>Has an easily removable plate for cleaning</p> <p>Has a touch screen display</p>

S.No	Equipment Name	Required Specifications
		<p>Provides data redundancy and convenient transfer to a computer. The internal memory backs up 8000 test results; the SD card stores over 100,000 test results. Results are transferred to a PC using a standard USB cable or wirelessly. Results can also be transferred to a LIMS network via Ethernet.</p> <p>Multilingual</p> <p>Must have Quality Certification</p>
21.	Trinocular microscope	<p>Head: Trinocular Superwidefield w/ C-Mount</p> <p>Eyepieces: 10x Eyepieces Superwidefield</p> <p>Nosepiece 6 Position</p> <p>Focusing: Coaxial coarse &amp; fine adjustment</p> <p>Stage: Graduated mechanical XY stage</p> <p>Objectives: Plan Fluor 4x, 10x, 20x, 40x, 100x Oil Objectives</p> <p>Condenser: 1.25 N.A. Condenser (Not Pictured)</p> <p>Fluorescence: Fluorescence Attachment</p> <p>DAPI, FITC, TRITC Filter Cubes</p> <p>Light Source: 12v 100W Halogen</p> <p>Warranty: One Year Mechanical</p>

S.No	Equipment Name	Required Specifications
22.	<b>Portable NIR spectrometer with UV-Visible Spectrophotometer</b>	<p>Quick wavelength calibration for rapid scanning</p> <p>Auto zero adjustment</p> <p>Built in SCM technology</p> <p>Auto background subtraction</p> <p>Rapid and non-destructive analysis</p> <p>Optical system      Grating monochromator</p> <p>Wavelength range    1000 nm ~ 1800 nm</p> <p>Wavelength accuracy <math>\pm 1</math> nm</p> <p>Detector              InGaAs detector</p> <p>Light source          Halogen lamp</p> <p>Wavelength reproducibility <math>\leq 1</math> nm</p> <p>Wavelength scanning interval 4 nm, 8 nm, 16 nm</p> <p>Absorbance reproducibility 0.002 A (at 0.4 A)</p> <p>Signal to noise ratio <math>\geq 103</math> (at 1500 nm)</p> <p>Scanning time        <math>\leq 2</math> mins</p>

S.No	Equipment Name	Required Specifications
		<p>Interface                      serial port</p> <p>Must have Quality Certification</p>
23.	<b>NMR with UV-Visible Spectrophotometer</b>	<p>Operating Frequency: 80 MHz (1H)</p> <p>Nuclei: 1H-only, 1H/13C, 1H/31P or 1H/129Xe</p> <p>1H Sensitivity: &gt; 160:1 for 1% Ethyl Benzene (1H/13C system, incl. pulsed field gradient)</p> <p>Gradient strength:    &gt; 0.25 T/m (25 G/cm)</p> <p>Automation:    PAL sample changer; up to 120 samples + 12 reference samples</p> <p>1H Resolution:            &lt; 0.4 Hz @ 50% peak height</p> <p>   &lt; 16 Hz @ 0.55% peak height</p> <p>Digital Lock:    External, no deuterated solvents needed</p> <p>Sample Tubes: standard 5mm diameter, 7"-long NMR tubes</p> <p>Lab Temperature:    18-28°C</p> <p>Must have Quality Certification</p>



S.No	Equipment Name	Required Specifications
24.	Water purifier	<ul style="list-style-type: none"> <li>- Resistivity Type 1: 18.2 Mohm.cm at 25°C; Type 2: 10 to 15 Mohm.cm at 25°C</li> <li>- Conductivity Type 1: 0.055µS/cm, Type 2: 0.067 to 0.1µS/cm</li> <li>- Feedwater SourceTap</li> <li>- Flow Rate 0.6 L/min.</li> <li>- Total Organic CarbonI to 5 ppb</li> <li>- Endotoxin Concentration 0.005 EU/mL</li> <li>- Bacterial Content &lt;0.01 CFU/mL</li> <li>- Particles &gt;0.2µM/mL&lt;1</li> <li>- Feed Water Monitoring No</li> <li>- Feedwater PressureI to 6 bar</li> <li>- Operating PressureI to 6 bar</li> <li>- IncludesRO/pretreatment cartridge, an ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator, UV lamp and UF filter.</li> </ul> <p>Must have Quality Certification</p>

## **TECHNICAL SPECIFICATIONS**

### **LIST OF CATEGORY (B) EQUIPMENT AND TECHNICAL & PERFORMANCE SPECIFICATIONS**

<b>Sno</b>	<b>Equipment Name</b>	<b>Required Specifications</b>
<b>1</b>	<b>Digital Dispenser (10ml, 50ml, 100ml) Set</b>	Range: 0.030–1.000 aw or better Resolution: 0.0001 aw Accuracy: $\pm 0.003$ (4TE dew point) $\pm 0.015$ (4TEV capacitance) Repeatability: 0.001 aw Temperature Range: 15-50 °C Resolution: 0.01 °C Accuracy: $\pm 0.1$ °C Must have Quality Certification (US
<b>2</b>	<b>Analytical Balance</b>	Weighing capacity (maximum): 220 g Readability: 0.1 mg Repeatability: $< \pm 0.1$ mg Linearity: $\pm 0.2$ m Response time: 2 seconds average Stabilizing time: 6 seconds average Working temperature: +10 to +40 °C Sensitivity drift: $\pm 1.5$ ppm/°C Adjustment/ Calibration: Internal (Automatic)

Sno	Equipment Name	Required Specifications
		<p>Pan Size: not less than 85 mm in diameter</p> <p>Display: LCD (backlit)</p> <p>Power Supply: 12V DC / 220V AC</p> <p>Warranty: Five years of parts and service</p> <p>Balance should have all glass draft shield with 3 sides opening (Left, Right, Top)</p> <p>Balance should have overload protection</p> <p>Balance should have standard weights set for calibration (1 to 200g)</p> <p>With built in Printer</p> <p>Certification US FDA/ JIS /CE</p>
3	<b>ANALYTICAL MICROBALANCE</b>	<ul style="list-style-type: none"> <li>• Features</li> <li>• advanced mechanical and electronic weighing technology</li> <li>• isoCAL: automatic internal adjustment can be programmed at defined intervals or ambient temperature changes</li> <li>• SQmin: minimum sample reference can be programmed and displayed on balance</li> <li>• Overload protection</li> <li>• Connect balance to a computer using a USB and transfer results instantly</li> <li>• Weighing results can be printed within seconds in compliance with GLP/GMP</li> </ul>

Sno	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>• Smaller footprint and up-front control display with integrated cooling system</li> <li>• Efficient and easy for fume hood and benchtop installations</li> <li>• Removable stainless steel pan</li> <li>• Single block, monolithic weight cell for optimum performance and repeatability</li> <li>• Simple touchscreen for easy navigation (without manual)</li> <li>• Removable, rolling glass doors and complete draft chamber</li> <li>• Contoured base plate provides spill protection and can easily be removed and cleaned</li> <li>• High capacity specifications to accommodate large beakers and tare containers</li> <li>• Specifications:</li> <li>• Sensitivity drift between 10deg.C to 30deg.C: <math>\pm 1</math>ppm/K</li> <li>• isoCAL Temperature Change: 1.5k      isoCAL Time Interval: 4 hours</li> <li>• Display Update Rate: 0.2mm, 0.4mm</li> <li>• Weighing Pan Dia.: 80 (90 optional)</li> <li>• Weighing Chamber Height: 218mm</li> <li>• Dimensions (D x W x H): 37.6 x 21.4 x 31.6cm (14.8 x 8.4 x 12.4 in.)</li> <li>• with built in printer</li> </ul>

Sno	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>Net Weight: approx. 7.8kg</li> <li>Weighing Capacity: 40g, 60g</li> <li>Readability: 0.01mg, Repeatability: 0.02mg, 0.04mg</li> <li>Linearity: 0.1mg, 0.1mg Stabilization time: 6, 6 sec</li> </ul> <p>Certification US FDA/ JIS /CE</p>
4	TOP LOADING BALANCE	<p>Digital top loading Balance</p> <p>Uni-block technology,</p> <p>Fast Response, high stability,</p> <p><b>Readability: 0.001gm</b></p> <p><b>Capacity: 620gm</b></p> <p>Built in under weighing hook,</p> <p>Piece counting function built in,</p> <p>RS 232C Data interface,</p> <p>Over load protection,</p> <p>Windows direct function,</p> <p>No software required,</p> <p>Stainless steel pan108x105mmwith draft shield, operatedon220volts, with built in printer</p> <p>Certification US FDA/ JIS /CE</p>

Sno	Equipment Name	Required Specifications
5	Analytical Balance	<p>Must have programmable multi-functional touch-free sensors for cleanliness, speed and safety</p> <p>Must have multiple applications modes plus library for storage of personal application settings External calibration</p> <p><b>Must support application:</b></p> <p>Weighing (Multiple units + custom units), parts counting, % weighing, filling, Differential weighing, Density determination, Pipette adjustment, Gross/Net/Tare weighing</p> <p>Display must be colored high Resolution</p> <p>Construction must be of Metal Base, Acrylonitrile butadiene styrene (ABS) top housing, stainless steel pan, anti-static glass draft shield with flip door, replaceable in use cover</p> <p>Must have fully automatic internal calibration system</p> <p>Must have density determination kit</p> <p>Must have four-digit measurement</p> <ul style="list-style-type: none"> <li>• Range 0 to 220g or above</li> <li>• Readability: 0.01 mg,</li> <li>• max Linearity: <math>\pm 0.05</math> mg</li> <li>• Adjustment: Internal or Equivalent</li> <li>• Electrical requirements: 9V/500mA, AC adapter included or Equivalent</li> <li>• Least Count: 0.00001 g (.01 mg)</li> <li>• Warranty: 3 years preferably 5 years along with calibrated standards and parts</li> <li>• Service Warranty: 3 years preferably 5 years</li> </ul>

Sno	Equipment Name	Required Specifications
		Should have necessary certification for safety and quality standards from national/ international bodies (US FDA/ JIS /CE)
6		<p>Weighing capacity (maximum):</p> <p>Readability: 220 g 0.1 mg</p> <p>Repeatability: &lt; <math>\pm 0.1</math> mg</p> <p>Linearity: <math>\pm 0.2</math> m</p> <p>Response time: 2 seconds average</p> <p>Stabilizing time: 6 seconds average</p> <p>Working temperature: +10 to +40 °C</p> <p>Sensitivity drift: <math>\pm 1.5</math> ppm/°C</p> <p>Adjustment/ Calibration: Internal (Automatic)</p> <p>Pan Size: not less than 85 mm in diameter</p> <p>Display: LCD (backlit)</p> <p>Power Supply: 12V DC / 220V AC</p> <p>Warranty: Five years of parts and service</p> <p>Balance should have all glass draft shield with 3 sides opening (Left, Right, Top)</p> <p>Balance should have overload protection</p> <p>Balance should have standard weights set for calibration (1 to 200g)</p> <p>With built in Printer</p>

Sno	Equipment Name	Required Specifications
		Certification US FDA/ JIS /CE
7	Equipment Name	Required Specifications
8	TDS meter	<p>Conductance Range: 0.1µS-450mS</p> <p>Resolution: 0.001</p> <p>Accuracy: ± 0.5% - 1%</p> <p>Memory: 1000 sets, most recent calibration data</p> <p>Power/battery: Battery Operated may also operate on power</p> <p>Display: white backlight liquid crystal Protection</p> <p>Class: IP67 Must compliant the good laboratory practices (EN)</p> <p>USB interface for simple data export to PC Printer</p> <p>Must Provide CRM (Certified Reference Method) along with equipment. or Equivalent to above Specification</p> <p>(Training to staff regarding method development, usage and complete operation of instrument)</p>
9	Water Activity Meter	<p>Range: 0.030–1.000 aw</p> <p>Resolution: 0.0001 aw</p> <p>Accuracy: ±0.003 (4TE dew point)</p> <p>±0.015 (4TEV capacitance)</p> <p>Repeatability: 0.001 aw</p> <p>Temperature</p> <p>Range: 15-50 °C</p> <p>Resolution: 0.01 °C</p>



Sno	Equipment Name	Required Specifications
		Accuracy: $\pm 0.1^{\circ}\text{C}$
10	Moisture Analyzer	<p>Uni-block technology system, Larger pan size (<math>\varnothing 95\text{mm}</math>), Halogen heater (quick &amp; accurate measurement), Windows direct</p> <p>Capacity: Max = 60g, Min = 0.02g</p> <p>Minimum readability: 0.001g, 0.01/0.1% (Selectable)</p> <p>Repeatability: 0.15% (2g), 0.05% (5g), 0.02% (10g)</p> <p>Drying heater: Straight type halogen heater</p> <p>Temperature range setting: <math>50\text{--}200^{\circ}\text{C}</math> (<math>1^{\circ}\text{C}</math> increments)</p> <p>Display: LCD with backlight</p> <p>Measurement modes: Standard, (Easy start / Automatic end / Timed end)</p> <p>Rapid drying, (Easy start / Automatic end / Timed end)</p> <p>Step drying, (Easy start / Automatic end / Timed end)</p> <p>Timer setting: 1-120 minutes or continuous, (max 12 hours)</p> <p>Interface: RS-232C (9-pin connector) I/O port, USB port</p> <p>Data memory: 100</p>
11	Fume Hoods (Size 3ft)	Ducted fume hood is a floor mounted unit with built-in microprocessor control system. Porcelain white provides unique appearance and corrosion resistant to the fume hood. Front thick transparent toughened glass gives bright and open working environment. Built-in axial flow blower controls air

Sno	Equipment Name	Required Specifications
		<p>stream speed. Standard PVC exhaust duct removes toxic fumes and provides excellent chemical resistance.</p> <p>→ Adjustable air speed (9 Levels)</p> <p>→ Two water proof socket</p> <p>→ Manual front glass window (height adjustable)</p> <p>→ Remote control water and gas</p> <p>→ Anti-corrosive water tap</p> <p>→ Phenolic resin coated work table (Chemical resistance)</p> <p>→ Internal dimensions      980 × 570 × 700 mm</p> <p>→ External dimensions      1240 × 800 × 2200 mm</p> <p>→ Work surface height      850 mm</p> <p>→ Maximum opening 740 mm</p> <p>→ Air velocity                0.3 m/sec ~ 0.8 m/sec</p> <p>→ Front window              5 mm toughened glass</p> <p>→ LED lamp                  30 W × 2</p> <p>→ Exhaust duct length      4 meters</p> <p>→ Exhaust duct diameter    250 mm</p> <p>→ Noise                        ≤ 60 dB</p> <p>Power supply ( AC ) 220 V ±10 %, 50 / 60 Hz</p>

Sno	Equipment Name	Required Specifications
12	<b>Certifications</b>	<p>Should be compliant with the requirements of FDA/CE/BIS</p> <ul style="list-style-type: none"> <li>• Quality Certification: ISO certified.</li> <li>• Should provide calibration certificates from NABL accredited agency every year during warranty &amp; CMC period. Calibration cost will have to be borne by the supplier.</li> <li>• Equipment should be FDA / CE certified or equivalent standard of repute. It should be ISO 9001:2000 or other equivalent</li> </ul> <p>All calibration certificates must be from ISO 17025: 2017 certified laboratory</p>
13	<b>Hot plate</b>	Temperature range upto 370°C, Heating Plate diameter 155 mm, Uniform distribution to whole surface and high resistance to Chemical Agents, operated on 220
14	<b>Magnetic stirrer digital</b>	<p>Temperature range: up to 370°C,</p> <p>Variable Speed Control: upto 1500rpm or high</p> <p>Heating Plate Ø: 155mm,</p> <p>Stirring capacity: 15 liter</p> <p>with PTFE follower</p> <p>Operated on 220 volts</p>
15	<b>EC conductivity bench meter</b>	<p>Model: Droplet type</p> <p>Measure with few drops</p> <p>Waterproof IP65</p>

Sno	Equipment Name	Required Specifications
		<p>Range: Electric Conductivity Method: 0.00 to 19.9mS/cm</p> <p>TDS: 0 to 9950 ppm</p> <p>Resolution: Electric Conductivity Method:</p> <p>0.01 mS/cm (0.00 to 1.99mS/cm)</p> <p>2.0 to 19.9 mS/cm (0.1 mS/cm)</p> <p>TDS:</p> <p>5ppm (0 to 995ppm)</p> <p>50ppm (1000 to 9950ppm)</p> <p>Accuracy</p> <p>Electric Conductivity Method:</p> <p>±0.04mS/cm (0.20 to 1.99mS/cm)</p> <p>±0.4mS/cm (2.0 to 19.9mS/cm)</p> <p>TDS:</p> <p>±20ppm(100 to 995ppm)</p> <p>±200ppm(1000 to 9950ppm)</p> <p>Calibration: 12.9mS/cm</p> <p>Temperature compensation: 10.0 to 40.0°C</p>
	<b>pH Meter</b>	AC Adapter Universal 50-60 Hz, 100-240 VAC power adapter (Cat. No. 1010003)

Sno	Equipment Name	Required Specifications
		<p>Accuracy (Temperature) <math>\pm 0.1^{\circ}\text{C}</math></p> <p>Accuracy (mV) <math>\pm 0.2\text{ mV}</math> or <math>\pm 0.05\%</math> of reading whichever is greater</p> <p>Accuracy (pH) <math>\pm 0.002\text{ pH}</math></p> <p>Backlight Option Yes, selectable</p> <p>Calibration pH with calibration editing option, relative mV (RmV), ORP and temperature</p> <p>Calibration Points 1 to 5</p> <p>Data Management Details Transfer single, range or all data points to printer or computer</p> <p>Data Points 2000 with Date and Time Stamp</p> <p>Display Type LCD (Graphic with Backlight)</p> <p>Log Function Type Automatic data logging with Auto-Read and Timed measure modes; manual data logging with Continuous m</p> <p>Measurement Modes pH, mV, relative mV (RmV) or ORP with temperature</p> <p>Outputs USB, RS-232</p> <p>Temperature Range (Metric) <math>-5^{\circ}\text{C}</math> to <math>+105^{\circ}\text{C}</math></p> <p>Alarm Output High/low limit alarm, calibration due alarm</p> <p>Battery Life 800 hr.</p> <p>Battery Type 4 x AA (sold separately)</p> <p>Channels 1</p> <p>Certifications/Compliance CE, TUV 3-I, FCC Class A</p> <p>Description Orion Star A211 pH benchtop meter separate sensor kit with ROSS Ultra pH electrode and ATC probe</p>

Sno	Equipment Name	Required Specifications
		<p>Dimensions (L x W x H) 24 x 18 x 11 cm (9.5 x 7.1 x 4.3 in.)</p> <p>Includes Star A211 pH meter, 8102BNUWP ROSS Ultra glass-body pH electrode, 927007MD stainless steel ATC probe, 810199 pH buffer kit, electrode stand, 100-240V universal power adapter, computer cable</p> <p>Inputs BNC (pH or ORP electrode), pin-tip (reference electrode), 8 pin MiniDIN (ATC temperature probe), stirrer input (stirrer probe)</p> <p>IP Rating IP-54</p> <p>Isopotential Point 7.000pH</p> <p>Keypad Comprehensive with menu-specific function keys and dual-purpose scroll/shortcut keys</p> <p>Languages English and available with software Update</p> <p>Memory Non-volatile memory preserves data log, calibration log and meter settings</p> <p>Methods 10 per channel with password protection</p> <p>Model Orion Star A211 pH/mV/RmV/ORP/Temperature Benchtop Meter</p> <p>Power Supply Universal AC adapter (included) or 4 AA batteries (sold separately)</p> <p>Probe Type pH electrode, ORP electrode, reference half-cell electrode, ATC temperature probe, stirrer probe (includes 8102BNUWP ROSS Ultra pH electrode and 927007MD ATC probe)</p> <p>Range (mV) <math>\pm 2000</math> mV</p> <p>Range (ORP) <math>\pm 2000.0</math>mV</p> <p>Range (pH) 0 to 14</p>

Sno	Equipment Name	Required Specifications
		Range (Relative mV) $\pm 2000.0\text{mV}$ Relative Humidity Range 5 to 85%, non-condensing Resolution (pH) 0.1, 0.01, 0.001 Resolution (mV) 0.1mV Resolution (Temperature) 0.1°C, 0.1°F Stability Selectable fast, medium, slow or Smart Stability setting; Selectable off or Automatic Smart averaging setting Temperature (English) Operating 41°F to 113°F (ambient) Temperature (Metric) Operating 5°C to 45°C (ambient) Temperature Probe Calibration 1 point temperature offset calibration Temperature Range (English) 22.0°F to 221.0°F Temperature Selection Manual or automatic with ATC temperature probe Weight (English) 2 lb. Weight (Metric) 0.9 kg Unit Size Each
20	Mechanical Shaker	Table sizes range from 30" x 30" up to 120" x 120" (and custom) with payload capacities up to 15,000 lbs. MS-400 Test Bed Size: 48 in. square (122 cm square) 60 in. Option Fence Size (L x H) 36 in. (91 cm) on one side Payload Capacity: 400 lb. (181 kg) Frequency Range: 5.0 Hz

Sno	Equipment Name	Required Specifications
		<p>Motion circular-synchronous, vertical-linear, 30° out-of-phase (optional)</p> <p>Maximum Acceleration: 1.25 g</p> <p>Displacement: 1 in. (2.54 cm) fixed</p>
21	<b>High Speed Centrifuge machine (Refrigerated)</b>	<p>Max. rotor capacity: 48 x 1.5/2.0 mL, 6 x 50 mL, 2 x MTP &gt; Max. speed: 30,130 x g (17,500 rpm) or better</p> <p>It should have option for 12 different rotors</p> <p>Soft-touch one-finger lid closure for ergonomic operation</p> <p>5 program keys for easy access to routine programs &gt; Saves up to 50 user-defined programs</p> <p>Automatic imbalance detection</p> <p>Quick Lock - System for quickly opening and closing the rotor lid</p> <p>Acceleration time = 14s</p> <p>Deceleration time = 15s</p> <p>Timer = 30s to 99.59 hours with continuous run function.</p> <p>Noise Level = &lt;58dB(A)</p> <p>Rotors Included= 24 x 1.5/2ml tubes, 6 x 15/50ml tubes and 64 x 0.2 ml pcr tubes</p>



Sno	Equipment Name	Required Specifications
22	Automatic Muffle Furnace	<p>Furnaces have a hinged vertical lift door to t keeps the hot door insulation always facing away from the operator.</p> <p>A door safety switch interrupts power to the heating elements when the door is opened.</p> <ul style="list-style-type: none"> <li>• 1200°C maximum operating temperature</li> <li>• Vacuum formed ceramic fiber heating elements</li> </ul> <p>ensure rapid heat up</p> <p>excellent temperature uniformity and quick cool down</p> <p>Max Temp (°C) 1200</p> <p>Heat Zones: 1</p> <p>Chamber Volume: 5 Lit</p> <p>Internal Dimensions HxWxD: 6 x6x9 in. (152x152x228) mm</p> <p>External Dimensions HxWxD: 22x18x26 in. (558x457x660) mm</p> <p>Thermo Couple Type K</p>

Sno	Equipment Name	Required Specifications
23	Laboratory Oven	<p>Adaptive Multifunctional</p> <p>Digital PID-microprocessor Controller</p> <p>High-Definition TFT-Color Displays</p> <p>Temperature range 5°C above ambient up to +300°C</p> <p>Single DISPLAY</p> <p>natural convection</p> <p>adjustment of pre-heated fresh air admixture by air flap control in 10% steps for each segment individually</p> <p>self-diagnostics for fault analysis</p> <p>digital timer adjustable from 1 minute to 99 days, 23 hours</p> <p>Multiple Overtemperature Protection with audible and visual alarm</p> <p>Interior Stainless Steel &amp; Textured Stainless-Steel Casing</p> <p>Capacity &gt;50 Litre,</p> <p>Operated on 220volts</p>

Sno	Equipment Name	Required Specifications
24	Multimode ELISA reader and plate washer	<p><b>a) <u>MULTIMODE ELISA READER</u></b></p> <p>Light source UV Xenon flashlamp</p> <p>Wavelength Selection: Quad4 Monochromators system (2 excitation and 2 emission monochromators)</p> <p>Bandwidth Ex: &lt; 5 nm for <math>\lambda \leq 315</math> nm and &lt; 9 nm for <math>\lambda &gt; 315</math> nm; Em: &lt; 20 nm</p> <p><b>Wavelength range:</b></p> <p>Fluorescence intensity Ex 230 – 850 nm, Em 280 – 850 nm</p> <p>Absorbance 230 – 1000 nm</p> <p><b>Detectors:</b></p> <p>Fluorescence – PMT, UV and red-sensitive</p> <p>Absorbance – UV silicon photodiode</p> <p>Luminescence – photon counting system with low dark current PMT</p> <p>Plate formats 6- to 384-well plates, cuvettes, NanoQuant Plate</p> <p>Temperature control Ambient +5 °C up to 42 °C</p> <p>Shaking: Linear, orbital</p>

Sno	Equipment Name	Required Specifications
		<p><b>Luminescence sensitivity values:</b></p> <p>Glow luminescence 3) 225 amol ATP / well (25 µl; low volume 384-well plate)</p> <p>Flash luminescence 4) 12 amol ATP / well (55 µl; 384-well plate)</p> <p><b>Absorbance:</b></p> <p>Ratio accuracy 260 / 280 nm <math>\pm</math> 0.07</p> <p>Precision @ 260 nm &lt; 0.2 %</p> <p>Accuracy @ 260 nm &lt; 0.5 %</p> <p>Measurement range 0 – 4 OD</p> <p><b>Injectors:</b></p> <p>Pump speed 100 – 300 µl/s</p> <p>Injection volume selectable in 1 µl increments; max. volume: 800µl per stroke</p> <p>Dead volume 100 µl including pump back</p> <p>Fastest Read Times    96-well plate 20 sec    384-well plate 30 sec</p> <p>Wavelength Ex / Em-scan, 96-well plate    450 – 550 nm, 5 nm step 150 sec</p> <p><b>b) <u>ELISA PLATE WASHER</u></b></p>

Sno	Equipment Name	Required Specifications
		<p>Display unit: Liquid crystal display with two rows of sixteen digits</p> <p>Keyboard: Four key membrane keyboard</p> <p>Number of dispensing channels 1-, 2- or 4-channels</p> <p>Manifold types 8- or 16-way for parallel processing of 8- or 16-wells</p> <p>Variable</p> <p>Volume of solution dispensed</p> <p>50 – 3000 µl in 50 µl steps for washing</p> <p>50 – 400 µl in 50 µl steps for dispensing</p> <p>Dispensing accuracy <math>\leq 1.2 \%</math></p> <p>(300µl dispense volume, dispense rate: 3, 8-way manifold)</p> <p>Dispensing uniformity CV <math>\leq 2.5 \%</math> over the plate</p> <p>(300µl dispense volume, dispense rate: 3, 8-way manifold)</p> <p>Residual volume Crosswise aspiration: <math>\leq 1.8 \mu\text{l}</math> per well (96-well, flat-bottom Greiner® plate)</p> <p>(Asp. Rate: 3; Asp. time: 4 sec; Head speed: 10 mm/sec; 8-way manifold)</p>

Sno	Equipment Name	Required Specifications
		<p>Vacuum range High level vacuum filtration: -150 to -850 mBar absolute pressure</p> <p>Low level vacuum filtration: -50 to -150mBar absolute pressure</p> <p>Interface USB</p> <p>Shaking Linear shaking; high-, medium- and low-setting</p> <p>Power Supply Auto sensing for the settings 220 – 240 V, 50/60 Hz</p>
25	Rancimat	<p>Instrument for the determination of the oxidation stability of natural fats and oils. All accessories necessary for the performance of the determinations is included in the scope of delivery. The StabNet software is required for instrument control, data recording and evaluation and for data storage (not included).</p> <p>Temperature range 50...220 °C, adjustable in 1 °C steps Temperature correction -9.9...+9.9 °C, adjustable in 0.1 °C steps Deviation of the block temperature from the set value &lt; ±0.3 °C Reproducibility of set temperature Typically better than ±0.2 °C</p> <p>Temperature variations Typically &lt;0.1 °C</p> <p>Temperature difference between different measuring Typically &lt;0.3 °C positions</p>

Sno	Equipment Name	Required Specifications
		<p>Ambient temperature &lt;50 °C (at an operating temperature of 220 °C)</p> <p>Response temperature of thermal protection 260 °C</p>
26	<b>Differential Scanning Calorimeter (DSC)</b>	<p>Furnace Type Silver Furnace</p> <p>Temperature range (max.) -180°C to 700°C</p> <p>Cooling rate / heating rate 0.001 to 200 K/min</p> <p>Measuring range (max.) ± 750 mW (τ-sensor)</p> <p>Enthalpy accuracy &lt; 1%*</p> <p>Precision of specific heat capacity determination &lt; 2 to 3% (for sapphire, RT to 500°C)</p> <p>Exchangeable sensors · τ-sensor (-180°C to 700°C)</p> <p>· μ-sensor (-150°C to 400°C)</p> <p>Cooling options</p>

Sno	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>·Air compressor: RT to 700°C</li> <li>·Compressed air: &lt;0°C to 700°C (Vortex)</li> <li>·Intracooler: -85°C to 600°C</li> <li>· Liquid nitrogen: -180°C to 700°C</li> </ul> <p>Gas atmospheres Inert, oxidizing, static, dynamic</p> <p>Gas-tight Yes</p> <p>Mass flow controller for purge/protective gas 3, integrated (0 ... 250 ml/min)</p> <p>Gas flow regulation Software-controlled</p> <p>Automatic sample changer (ASC) Optional, for up 192 samples + up to 12 calibration samples</p> <p>Evolved Gas Analysis MS and/or FT-IR, possible with ASC</p> <p>Photocolorimetry (optional) UV extension for various commercial lamps, possible with ASC</p> <p>Proteus® software (included features)</p> <p>Smart Mode</p>



Sno	Equipment Name	Required Specifications
		Expert Mode Autocalibration Auto Cooling Auto Evaluation Identify Advanced BeFlat®Proteus® software extensions (optional) Temperature modulation, TM-DSC Purity Advanced software extensions (optional) ·Peak Separation · Thermokinetics · Thermal Simulations ·Component Kinetics Size (W x H x D) - incl. ASCand physical connections approx. 62 cm x 42 cm x 58 cm



Sno	Equipment Name	Required Specifications
		<p>Voltage 110 V/60 Hz</p> <p>220 V/50 Hz</p> <p>Working dimensions 600 x 300 x 120 mm or better</p> <p>Dimensions 670 x 370 x 240 mm or better</p>
29	<b>Test tube shaker (Vortex mixture)</b>	<p>Heavy Vortex high speed mixer with brushless motor, digital display and optional attachments.</p> <p>Motor: brushless DC motor</p> <p>Kind of motion: orbital, 4 mm</p> <p>Speed range: 300 - 4200 rpm. / Speed accuracy: <math>\pm 10</math> rpm</p> <p>Max. Loading Capacity: 500g</p> <p>Display: Digital Speed / Time Setting</p> <p>Switch: ON / OFF / Touch</p> <p>Pulse mode (default): vibration for 5 secs. than pause for 5 secs.</p> <p>Pulse mode (programme) vibration time &amp; pause time can be defined by user between 1 to 99 secs.</p> <p>Timer: 1 to 999 mins. &amp; Continuous mode</p> <p>Power: external power adapter, 1.6A</p>
30	<b>Ultrasonic bath sonicator digital</b>	<p>Technical specs</p> <p>- cavitation-resistant stainless steel.</p>

Sno	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>- Casing made of stainless steel,</li> <li>- hygienic and easy to clean</li> <li>- Permanent sweep function for an optimized sound field distribution in the cleaning liquid.</li> <li>- Temperature-controlled ultrasonic operation:</li> <li>- Temperature setting between 30 C°, and 80C°, variable in 5 C°, steps.</li> <li>- Automatic switch-off after 12 h operation to prevent unintended permanent operation.</li> <li>- Tank max.(litre) = 2.75</li> <li>- Tank internal dimensions = 240x137x100 mm</li> <li>- Ultrasound frequency (kHz) = 37</li> <li>- Mains voltage = 220V</li> </ul>
31	<b>Solvent Filtration Assembly</b>	<p>Supplied with a 40–60-micron porosity fritted glass support base, a 1 L graduated funnel, an anodized aluminum clamp and a #8 silicone stopper</p> <p>Prefilter size is 35 mm</p> <p>Approximate filter area is 9.6 cm <sup>2</sup></p>

Sno	Equipment Name	Required Specifications																																	
		<p>Connection to our 1-liter filtration flask (available as an accessory) is made with a silicone stopper</p> <p>Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements, Should include vacuum pump.</p>																																	
	<b>Anaerobic Jar</b> <b>1.5L~10L,</b>	<table> <tr> <th>Holder Packing</th><th>Size (L*W*H)</th><th>Gross weight</th></tr> <tr> <td>1 stack of 6 dishes</td><td>(<math>\phi</math>9-10cm)</td><td>15R</td></tr> <tr> <td>245*215*295mm</td><td>2.3kg</td><td></td></tr> <tr> <td colspan="3"><math>\phi</math>=130mm, h=150mm; 1.5liter</td></tr> <tr> <td>1 stack of 12 dishes (<math>\phi</math>9-10cm)</td><td></td><td>25R</td></tr> <tr> <td>245*215*395mm</td><td>2.8kg</td><td></td></tr> <tr> <td colspan="3"><math>\phi</math>=130mm, h=240mm; 2.5liter</td></tr> <tr> <td>1 stack of 18 dishes (<math>\phi</math>9-10cm)</td><td></td><td>15/25R</td></tr> <tr> <td>245*215*495mm</td><td>3.3kg</td><td></td></tr> <tr> <td colspan="3"><math>\phi</math>=130mm, h=330mm; 3.5liter</td></tr> <tr> <td>3 stacks of 6 dishes (<math>\phi</math>9-10cm)</td><td></td><td>3/25R</td></tr> </table>	Holder Packing	Size (L*W*H)	Gross weight	1 stack of 6 dishes	( $\phi$ 9-10cm)	15R	245*215*295mm	2.3kg		$\phi$ =130mm, h=150mm; 1.5liter			1 stack of 12 dishes ( $\phi$ 9-10cm)		25R	245*215*395mm	2.8kg		$\phi$ =130mm, h=240mm; 2.5liter			1 stack of 18 dishes ( $\phi$ 9-10cm)		15/25R	245*215*495mm	3.3kg		$\phi$ =130mm, h=330mm; 3.5liter			3 stacks of 6 dishes ( $\phi$ 9-10cm)		3/25R
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Sno	Equipment Name	Required Specifications
32		<p>370*370*340mm    5.9kg</p> <p>φ=240mm, h=120mm; 5liter</p> <p>3 stacks of 8 dishes (φ9-10cm)                      3/25R</p> <p>370*370*370mm    6.3kg</p> <p>φ=240mm, h=160mm; 7liter</p> <p>3 stacks of 12 dishes (φ9-10cm)                      3/25R</p> <p>370*370*470mm    7.3kg</p> <p>φ=240mm, h=230mm; 10liter</p>
34	<b>Automated glassware washer</b>	<p>Glassware washing machine is a fully automated CPU SCM controlled laboratory glassware cleansing unit. It is characterized with excellent washing and anti-bacterial thermal disinfection with blast drying function. The inbuilt piping systems with effective valves and pumps enable efficient spray cleaning and heat sterilization.</p> <p>Digital LCD touch screen promotes visual monitoring and operational accessibility</p> <p>Real time display of washing temperature and drying air temperature</p> <p>316 L stainless steel double walled internal structure</p>

Sno	Equipment Name	Required Specifications
		<p>Insulated anti-corrosive external structure</p> <p>One touch 6 preset cleaning procedures (washing, rinsing, ultrasound rinsing, blast drying, washing temperature, drying temperature)</p> <p>Automatic power off by temperature control relay</p> <p>Automatic alarm indication on absence of washing liquid and distilled water</p> <p>→ Heating system power            3000 W</p> <p>→ Drying system power            2000 W</p> <p>→ Ultrasonic power            500 W</p> <p>→ Maximum operating power    3500 W</p> <p>→ Ambient temperature            5 °C ~ 40 °C</p> <p>→ Relative humidity &lt; 85 %</p> <p>→ Power supply                      AC 220 V ± 10 %</p>
	<b>Bio Safety Cabinet Class II Type B2</b>	<p>Depth (Metric) Exterior: 800</p> <p>Dimensions (L x W x H) Exterior: 800 x 1900 x 1536</p> <p>Electrical Requirements: 230 V</p> <p>Filter Efficiency: 1.0000</p> <p>Filter Type: H14 Hepa</p>

Sno	Equipment Name	Required Specifications
36		<p>Hertz: 50/60 Hz</p> <p>Lighting: LED</p> <p>Certifications/Compliance: EN 12469</p> <p>Chamber Material: Stainless Steel (316)</p> <p>Energy Consumption (Operating Set Point) 251 W/h</p> <p>Energy Consumption (Reduced Flow Mode) 80 W/h</p> <p>Outlets: 4 x Rear Wall</p> <p>Ports: 2 x each side plus Smart Ports</p> <p>Sash Opening 7.8 in.</p> <p>Sash Opening (Metric) 200 mm</p> <p>Type Factory Acceptance Testing Documentation</p> <p>Width (English) Exterior 74.8 in.</p> <p>Width (Metric) Exterior 1900 mm</p> <p>Unit Size Each</p>



Sno	Equipment Name	Required Specifications
37	BOD Incubator	<p>BOD incubator is a low temperature unit equipped with forced convection system. Sealed compressor and insulated chamber aid in the uniform temperature distribution, heat exchange and gentle air flow. Microprocessor PID auto-tuning controller ensures precise control of temperature, speed and flow. Magnetic packing absorbs vibration, thus preventing sample damage. Safety tempered glass inner door prevents heat loss and provide clear sample visualization.</p> <ul style="list-style-type: none"> <li>• Solid-state relay (SSR) type temperature regulator (an electronic switching device)</li> <li>• Ni-Cr heating element</li> <li>• Magnetic closure with positive sealing gasket (outer door)</li> <li>• Over temperature alarm (overheating prevention)</li> <li>• Digital display for parameters viewing and control</li> <li>• Stainless steel shelves (interior material)</li> <li>• Steel plate with powder coated finish (exterior material)</li> <li>• Safety devices include ELB (elastic load balancing) and self-diagnosis functions such as memory error, overheating, SSR and sensor short circuit for end user safety.</li> </ul> <p>Capacity 150 L</p> <p>Temperature range 5 °C ~ 70 °C</p>

Sno	Equipment Name	Required Specifications
		Environmental temperature range    5 °C ~ 25 °C Temperature accuracy                          ± 0.5 °C at 20 °C Heating power                                      600 W Fan motor power                                 13 W × 2 ea Circulating fan diameter                      Ø 100 mm Refrigerator compressor                      ⅓ hp ThermocouplePt                                 100 Ω Power (I phase)                                  AC 230 V 50 Hz / 60 Hz
	Circulating water bath	Amperage:    11.2-13.1 / 5.4-6.3 (120V/230V)  Capacity (English):    9.2 gal.  Controller Type:       Digital  Description:   35L Circulating Water Bath  Display: Monochrome LCD  Heating Capacity: 1500 w  Includes: 1 Stainless Steel Gable cover and Rubber Duck

Sno	Equipment Name	Required Specifications
38		<p>Material: 304 Stainless Steel</p> <p>Model Precision: CIR 35</p> <p>Temperature Presets: 4</p> <p>Temperature Stability: <math>\pm 0.1^{\circ}\text{C}</math></p> <p>Temperature Uniformity: <math>\pm 0.05^{\circ}\text{C}</math></p> <p>Capacity (Metric): 35 L</p> <p>Certifications/Compliance: UL, CE</p> <p>Communications: Digital</p> <p>Electrical Requirements: Global Voltage 100/115 V 200/230 V 50/60 Hz</p> <p>Temperature Range: Ambient <math>+5^{\circ}</math> to <math>100^{\circ}\text{C}</math></p>
	<b>Digital Colony Counter</b>	<p>Automatic colour colony counter that offers quick and traceable counting results. Equipped with a digital camera and a powerful software, it connects to a PC via USB connection.</p> <p>Widely used in food microbiology, it counts colonies, measures antibiograms and automatically saves all data, images and results. In compliance with CFR 21 part 11, EUCAST, CA-SFM, ISO 7218, ISO 4887-2</p> <p>→ All stainless steel body</p> <p>→ CMOS colour camera</p>

Sno	Equipment Name	Required Specifications
39		<ul style="list-style-type: none"> <li>→ Lens M12</li> <li>→ Digital zoom x28 (enabling to read the letters on the disks)</li> <li>→ Resolution: 1 mega-pixels</li> <li>→ Counting time: 1000 colonies per second</li> <li>→ Minimum size of colony: 0.1 mm</li> <li>→ Lighting system: long-life white LEDs / Dark Field</li> <li>→ Lighting system: automatic 6 combinations, top and/or bottom light, white or black background</li> <li>→ Counting: automatic with manual control</li> <li>→ Results / data export: Re-countable file, PDF report, jpeg, png, bmp, Excel™</li> <li>→ LIMS connection</li> <li>→ USB connection</li> <li>→ Counting on Petri dishes (55 - 90 mm)</li> <li>→ Spiral plating</li> <li>→ Colour detection: 7 colours on the same dish</li> <li>→ Counting on chromogenic medium</li> <li>→ Inhibition zone measurement</li> <li>→ Automatic separation of confluent colonies</li> <li>→ Automatic elimination of counting grids</li> <li>→ Polygonal exclusion areas</li> </ul>

Sno	Equipment Name	Required Specifications
		<p>→ Automatic detection of paper disks (all brands simultaneously), wells, petri-cylinders (steel, plastic), customizable, add/subtract manually</p> <p>→ Inhibition zone reader: automatic with possible manual check-up</p> <p>→ Number of antibiotic paper disks: up to 8 antibiotics on a 90 mm Petri dish</p> <p>→ Reading time: 8 inhibition zone reading in 1 - 3 seconds</p> <p>→ Interpretation system: CA-SFM Human health / EUCAST / CA-SFM Veterinary / customizable list</p> <p>→ Security of data: saving of all changes in compliance with CFR 21 recommendations /</p> <p>→ Results / Traceability: image / sample number &amp; antibiotic name / bacteria name / read diameter / result with category SIR by colour code (Sensitive / Intermediate / Resistant) / critical diameter mini and maxi /comments / date / time</p> <p>Power: 100-240V~ / 50-60Hz</p> <p>Guarantee): 1 year</p> <p>Software update (after registration): 3 years</p> <p>In compliance with CFR 21 part 11, EUCAST, CA-SFM, ISO 7218, ISO 4887-2</p> <p>Manufactured under: ISO 9001 V2008, CE, WEEE 2002/96/EC, RoHS</p> <p>2002/95/EC standards</p> <p><b>MINIMUM COMPUTER REQUIREMENTS</b></p> <p>→ Processor: Intel (recommended)</p> <p>→ Operating system: Windows 7 SPI or Windows 8 or superior</p>

Sno	Equipment Name	Required Specifications
		→ Frequency: 2,4 Ghz or superior → RAM: 2 Go → Features: CD ROM reader, USB port → Screen resolution: 1280 x 1024 pixels <b>DELIVERED WITH</b> → Software → Connection cables → 3 control dishes → User's manual and IQ/OQ/PQ guidelines
40	<b>Aflatoxin detector</b>	<p>Combined incubator and reader making quick work of antibiotic and aflatoxin</p> <p>Is a combined incubator and reader in one system, Automatically identifies the test Is fully customizable to meet your facility's needs. Use to incubate and read tests; or, to perform batch testing, incubate separately and read results. Will self-diagnosis common errors Has an easily removable plate for cleaning Has a touch screen display, Provides data redundancy and convenient transfer to a computer. The internal memory backs up 8000 test results; the SD card stores over 100,000 test results. Results are transferred to a PC using a standard USB cable or wirelessly. Results can also be transferred to a LIMS network via Ethernet.</p> <p>Multilingual</p>

Sno	Equipment Name	Required Specifications
41	<b>Frost Free Double door (side by side) Refrigerator</b>	<p>Pharmacy refrigerator is an upright double glass door refrigeration unit with electronic temperature controller. Automated defrost cycles facilitate frost-free storage interiors.</p> <p>Polyurethane insulation with magnetic seal rings ensures low energy consumption. System alarms include temperature limits, door ajar, low voltage and power off conditions. Secured with digital password to avert unauthorized user access. Sprayed steel exteriors promote long-term corrosion resistance increasing durability.</p> <ul style="list-style-type: none"> <li>→ CFC-free rapid fan cooling technology</li> <li>→ Digital control panel for temperature monitoring and alarms</li> <li>→ Sprayed steel interiors</li> <li>→ Temperature range : 2 °C ~ 8 °C</li> <li>→ Interior cabinet LED lighting</li> <li>→ Automatically charging for power backup</li> <li>→ Durable casters for mobility</li> <li>→ Network accessibility via USB interface</li> <li>→ Storage capacity                      1006 L</li> <li>→ Wire shelves                              10</li> <li>→ Exterior dimensions                  1220 × 872 × 1885 mm</li> <li>→ Interior dimensions                   1100 × 684 × 1325 mm</li> <li>→ Temperature                              2 °C ~ 8 °C</li> </ul>

Sno	Equipment Name	Required Specifications
		→ Ambient temperature 10°C ~ 32°C → Temperature sensor NTC → Refrigerant R600a → Evaporator Copper tube aluminum fin → Condenser Tube type → Noise 53 dB → Power consumption 6.23 kWh → Power supply 195 V ` V / 50 Hz ; 1.75 A
	<b>Micropipette</b>	Adjustable volume pipettes  Adjustable dispensing volumes within a range of 0.5 µL and 1 mL  Selected volume is clearly displayed in the large 4-digit volume display  Quick and accurate volume settings easier than ever  The new volume setting allows for switch from maximum to minimum volume in just a few turns  High accuracy and precision, robustness quality and fantastic ergonomic design  Good chemical & UV-light resistance Product features  Air-displacement pipette for accurate pipetting of aqueous solutions



Sno	Equipment Name	Required Specifications
42		<p>Tip ejection force should be as low as 3.6 N</p> <p>Adjust your pipette in seconds for better accuracy when pipetting various difficult liquids like ethanol or even when pipetting at high altitudes. Return to factory adjustment without calibration</p> <p>Autoclave the entire pipette</p> <p>Adjust pipetting volume in seconds by up to <math>\pm 2</math> % for better accuracy when pipetting various difficult liquids like warm, cold, volatile or high density liquids or even when external conditions change.</p> <p>Pipette ranges: 0.5-10ul, 10-100ul, 20-200ul, 30-300ul and 100-1000ul.</p>
	<b>Incubator (Ambient to 70 °C)</b>	<p>Due to its compact architecture, it provides an economical, efficient and space saving personal solution for incubating culture flasks, dishes, tubes and test plates.</p> <p>A personal incubator avoids contamination and reagent confusion caused by multiple people using one machine.</p> <p>The integrated UV light provides disinfection after use.</p> <p>The UV disinfection mode is blocked during incubation.</p>

Sno	Equipment Name	Required Specifications
43		<p>A double-deck metal plate reinforced door with door open alarm and automatic turn off UV lamp function. The watch window adopts anti-UV-explosion-proof glass, which allows people to inspect running condition of the machine.</p> <p>The inner chamber is made out of stainless steel and easy to clean.</p> <p>A small cord port at the back of the unit allows the use of small mixers.</p> <p>Volume: 225 l</p> <p>Operating Temp. Range: Room Temperature + 5°C... + 80°C</p> <p>Temp. Uniformity: <math>\pm 0,65</math> (37°C)</p> <p>Temp. Fluctuation: <math>\pm 0,65</math> (37°C)</p> <p>Temperature Setting: 0,1°C</p> <p>Timekeeping Time: 99 hours, 59 min, 59 sec.</p> <p>UV Disinfection Power: 6 W</p> <p>Max. Number of shelves: 2</p> <p>Internal Dimension: 273 x 300 x 304 mm (L x W x H)</p> <p>External Dimension: 400 x 345 x 463 mm (L x W x H)</p>

Sno	Equipment Name	Required Specifications
44	Incubator (5 °C to 50°C)	<p>Capacity (English) 2.6 cu. ft.</p> <p>Certifications/Compliance CE Marked</p> <p>Controller Type Microprocessor control with vacuum fluorescent display</p> <p>Convection Technology Gravity convection</p> <p>Capacity (Metric) 75 L</p> <p>Chamber Material Stainless Steel</p> <p>Dimensions (D x W x H) Interior 16.3 x 13.9 x 20 in. (41.4 x 35.4 x 50.8 cm)</p> <p>Dimensions (L x W x H) 22.2 x 20.9 x 28.3 in. (56.5 x 53 x 72 cm)</p> <p>Temperature Range (Metric) Ambient +5°C to 75°C</p> <p>Electrical Requirements 230 V, 50/60 Hz</p> <p>Frequency 50/60 Hz</p> <p>No. of Shelves 2 supplied/ 13 max.</p> <p>Plug Type Country-specific</p> <p>Voltage 230 V</p>

Sno	Equipment Name	Required Specifications
		<p>Wattage      300 w</p> <p>Type   Microbiological Incubator</p> <p>Unit Size      Each</p>
45	<b>Laminar Air Flow(4ft)</b>	<p>Vertical Laminar Flow Cabinet is a floor standing unit with an applicable station of two operators on both the sides provides an aseptic work area with vertical air flow direction. The air passed through a 0.3 µm HEPA filter is then discharged over the work area in a unidirectional stream providing a sterile working environment.</p> <p>Two operators applicable station</p> <p>Vertical laminar air flow direction</p>

Sno	Equipment Name	Required Specifications
		<p>High-efficient HEPA filter of over 0.3um filtering ratio</p> <p>Enclosed stainless steel bench board to effectively prevent air flow and keep operator from pungent odour</p> <p>100 grade cleanliness</p> <p>Low-noise fan and light touching blowing-rate operational key</p> <p>Adjustable multi-level blowing rate</p> <p>Operators                      Two</p> <p>Applicable stations      Both Sides</p> <p>Cleanliness                      100 grade <math>\geq 0.5 \mu\text{m}</math> particle size</p> <p>Colony count                      <math>\leq 0.5</math> (<math>\Phi</math> 90 mm cultivation utensil)</p> <p>Supply voltage 220 V 50 Hz</p> <p>Average wind speed      0.2 ~ 0.6 m/s (Adjustable)</p> <p>Noise Level                      <math>\leq 62</math> dB</p> <p>Vibration and semi-peak numerical value      <math>\leq 4 \mu\text{m}</math></p> <p>Luminance                      <math>\geq 300</math> lx</p>

Sno	Equipment Name	Required Specifications
		<p>Fluorescent Lamp      30 W</p> <p>U.V. Lamp                30 W</p> <p>Specification of HEPA Filter (2 pieces)    610 × 610 × 50 mm</p> <p>Inner chamber dimensions    1310 × 710 × 500 mm</p> <p>Exterior dimensions            1487 × 733 × 1690 mm</p> <p>Packing size dimensions       1655 × 905 × 1840 mm</p> <p>Net weight                  200 kgs</p> <p>Gross weight                305 kgs</p>
46	<b>Trinocular microscope</b>	<p>Optical System          Finite-conjugate</p> <p>Mechanical Tube Length      160mm</p> <p>Head   Trinocular, 45° incline, 360° rotatable</p> <p>Interpupillary Adjustment    sliding, 55-75mm</p> <p>Ocular Diameter          23mm</p> <p>Eyepieces                10X, 16X</p> <p>Photo Port      height-adjustable 23mm tube</p>

Sno	Equipment Name	Required Specifications
		<p>Objective Lenses      DIN standard</p> <p>Objective Parfocal Distance    45mm</p> <p>Objective Mounting Thread    RMS 20.32mm</p> <p>Objective Turret      quadruple</p> <p>Focusing System      Coaxial coarse and fine focus, upper limit-stop, tension control</p> <p>Focus Range    30mm</p> <p>Division of Fine Focus 0.002mm</p> <p>Stage Design    Double-layer with caliper</p> <p>Stage Dimensions      140mm x 140mm</p> <p>X-Y Translation Range      75mm x 45mm</p> <p>Transmitted Illumination      20W halogen</p> <p>Condenser      NA1.25 Abbe condenser with iris diaphragm, 32mm filter holder</p> <p>Sub-stage Condenser-holder rack and pinion</p> <p>Power 110VAC 60Hz</p>

Sno	Equipment Name	Required Specifications
		<p>Camera Specifications</p> <p>Sensor Type CMOS</p> <p>Sensor Optical Format 1/3"</p> <p>Active Pixels 1.3M (1280 x 1024)</p> <p>Pixel Size 3.6µm x 3.6µm</p> <p>Active Sensor Area 4.60mm x 3.70mm</p> <p>Shutter electronic rolling shutter</p> <p>Sensitivity 1.0V/Lux-sec</p> <p>Spectral Response 380-650nm with IR-cut filter</p> <p>Capture Resolution and Maximum Framerate</p> <p>15fps@ 1280x1024</p> <p>26fps @ 640x512</p> <p>50fps @ 320x256</p> <p>Connectivity USB 2.0</p> <p>Lens-mount C-mount</p>



Sno	Equipment Name	Required Specifications	
		Compensating Lens 0.37X	
		Power 5VDC over USB	
47	Gerber Centrifuge	Model	Gerber Centrifuge
		Max RPM	1100rpm
		Max RCF	350×g
		Max Capacity	8×20ml
		Time Range	1min~99min
		Temp Range	+24°C~60°C
		Voltage	AC 220±22V 50/60Hz
		Noise Level	≤ 60dB(A)
		Rotor Diameter	Φ230mm
		Dimensions	510×480×350 (mm)
		Packing Dimensions	610×580×450 (mm)

Sno	Equipment Name	Required Specifications
48	<b>Gel Electrophoresis (Both Horizontal and Vertical)</b>	<ul style="list-style-type: none"> <li>• Dismountable electrodes (easy maintenance)</li> <li>• PC (Polycarbonate) transparent top lid for safety</li> <li>• Automatic power off if the lid is removed</li> <li>• Bias power supply (BPS-1/BPS-2/) for controlling circuit</li> <li>• Gel trays (W x L) 60 x 60 mm, 120 x 60 mm, 60 x 120 mm, 120 x 120 mm</li> <li>• Buffer volume 550 ml</li> <li>• Comb thickness 1 mm and 1.5 mm</li> <li>• Comb throughput 1, 2, 3, 6, 8, 11, 13, 18, 25 samples</li> <li>• No of samples 1 to 100</li> </ul>
	<b>Refractometer</b>	<p>Measuring ranges Refractive index scale (RI)</p> <p>Range nD 1.30 to 1.66</p> <p>Resolution nD <math>\pm 0.0001</math></p> <p>Accuracy nD 1) <math>\pm 0.0001</math></p> <p>Measuring ranges Brix scale</p> <p>Range 0 to 100 %</p> <p>Resolution 0.01 %</p> <p>Accuracy 0.05 %</p>

Sno	Equipment Name	Required Specifications
49		<p>Measuring range Temperature</p> <p>Range No temperature control</p> <p>Temperature probe accuracy I) <math>\pm 0.05\text{ }^{\circ}\text{C}</math></p> <p>Additional information</p> <p>Wetted parts Sapphire, FFKM, PP GF 30, stainless steel</p> <p>Light source LED light source</p> <p>Wavelength 589 nm</p> <p>Minimum sample volume approx. 0.2 mL</p> <p>Measuring time approx. 5 seconds per sample (after temp. equilibration)</p> <p>Default methods Refractive Index, Brix, glucose, fructose, invert sugar, sucrose</p> <p>Additional methods More than 200 scales available on request (e.g. syrup, honey, alcohol, urine, serum, acides, bases)</p> <p>Data interface RS-232, 2 USB ports, 1 USB serial, Ethernet Printer, Ethernet LIMS (Abbemat 3200)</p> <p>User interface 5,8" inch touchscreen</p>

Sno	Equipment Name	Required Specifications
50	<b>Polarimeter</b>	<p>Measuring scales: °Optical Rotation, °Specific Rotation, %Concentration</p> <p>Measuring range: ±89.9°</p> <p>Resolution: 0.001°</p> <p>Accuracy: ±0.01°</p> <p>Repeatability: ±0.01°</p> <p>Response time: 12 sec.</p> <p>Wavelength: 589 nm</p> <p>Light source: LED, with average lifetime of 100.000 hours</p> <p>Sensitivity: A light intensity control compensates attenuation up to Optical Density (OD) 2.0</p> <p>Temperature sensor: Built-in PT 100 sensor</p>

Sno	Equipment Name	Required Specifications
		<p>Temperature resolution: 0.1 °C</p> <p>Temperature accuracy: <math>\pm 0.2</math> °C</p> <p>Temperature control: Automatic Peltier temperature control at 20°C and 25°C, or without temp. control</p> <p>Sample cell / quartz control plate:</p> <p>Toolmaster™ - Automatic sample cell and quartz control plate identification; sample cell path length of 2.5 mm to 100 mm</p> <p>Display: TFT touchscreen 5.7" (145 mm), 640 x 480 Pixels</p> <p>Interfaces: 3 USB, RS232, Ethernet, CAN bus, easy connection of keyboard, mouse, printer, bar code. Network capability</p> <p>Power supply / consumption: AC 100 to 240 VAC, 50/60Hz / 70VA, 120 VA max.</p>
	<b>Viscometer</b>	<p>Rotational viscometer for fast determination of viscosity as specified in ISO 2555 and other ASTM norms.</p> <p>Offers viscosity measurements which are 100 % compatible with Brookfield method and permits to carry out comparative measurements in accordance to recognized standards in quality control laboratories.</p> <ul style="list-style-type: none"> <li>Speed selected: rpm</li> </ul>

Sno	Equipment Name	Required Specifications
51		<ul style="list-style-type: none"> <li>• Spindle used: Spindle Reference</li> <li>• Dynamic viscosity: mPas or CP</li> <li>• Full scale percentage: %</li> <li>• Sample temperature: °C or °F</li> <li>• Auto range to display</li> <li>• Viscosity limits: mPas or CP</li> </ul> <p>Two different versions are available “L” for low to medium viscosity and “R” for medium to high viscosity.</p> <p>They will be supplied with PC based Software “ViscosoftBasic”, which allows to download data directly from the Viscometer. Measured values are shown in a chart and can be saved in Excel format for posterior evaluation.</p> <p>Supplied as a complete system in a very robust carrying case, incl. stand, a complete set of standard spindles with storage rack (4 spindles with version L), spindle guard, temperature sensor, ViscosoftBasic Software, calibration certificate and user manual. 3 - 2.000.000 mPas in 76 ranges 19 speeds with 4 spindles. 100-240V, 50-60Hz</p>
	Density Meter	<p>Measuring range</p> <p>Density      0 g/cm<sup>3</sup> to 3 g/cm<sup>3</sup></p> <p>Temperature 0 °C to 100 °C (32 °F to 212 °F)</p>

Sno	Equipment Name	Required Specifications
52		Pressure up to 10 bar (145 psi) absolute pressure  Accuracy  Density 0.0001 g/cm <sup>3</sup>  Temperature 0.03 °C (0.05 °F)  Repeatability  Density 0.00001 g/cm <sup>3</sup>  Temperature 0.02 °C (0.04 °F)  Reproducibility  Density 0.00005 g/cm <sup>3</sup>  Digital resolution  Density 0.0001 g/cm <sup>3</sup>  Features  Power features U-View™, FillingCheck™, ThermoBalance™, full-range viscosity correction

Sno	Equipment Name	Required Specifications
		<p>Special functions QM compliance, temperature scan, built-in ambient pressure sensor, condition monitoring Adjustment at high viscosity (only DMA 500I )</p> <p>Automation Automatic sample changers</p> <p>Modularity pH, alcohol, CO2, O2, color</p> <p>Optional accessories Aerosol Adapter, Heating Attachment</p> <p>Technical data</p> <p>Typical measuring time/sample 20 s</p> <p>Minimum sample volume approx. 1 mL</p> <p>Wetted materials PTFE, borosilicate glass</p> <p>Dimensions (L x W x H) 526 mm x 347 mm x 230 mm (20.7 in x 13.7 in x 9 in)</p> <p>Weight 22.04 kg (48.6 lbs)</p> <p>Power supply AC 100 to 240 V, 50/60 Hz, fluctuation <math>\pm 10\%</math>, 190 VA</p> <p>Display 10.1" TFT WXGA (1280 x 800 px); PCAP touchscreen</p> <p>Controls Touchscreen, optional keyboard, mouse, and bar code reader</p>



Sno	Equipment Name	Required Specifications
		<p>Communication interfaces 5 x USB, Ethernet, CAN, RS232</p> <p>Internal storage More than 10,000 measuring values with camera images</p>
53	Milk Analyzer	<p><b>Milk analyzer</b> mid-infrared &amp; ultrasonic hybrid milk analyzer.</p> <p>All data can be easily accessed through Wi-Fi, Ethernet, Bluetooth, RS232, USB for further processing.</p> <p>Average time per 1 measurement - 45 sec.</p> <p>Application Area: Dairy farms, Milk collecting points, Dairy industry, Veterinary and dairy laboratories</p> <p>Ammonium Sulfate 0.10 ± 0.05 (abs.)</p> <p>Urea 0.20 ± 0.05 (abs.)</p> <p>Melamine 0.10 ± 0.05 (abs.)</p> <p>Nitrates (ammonium, potassium, sodium) 0.05 ± 0.03 (abs.)</p> <p>Carbonates/Bicarbonate (ammonium, potassium,) 0.08 ± 0.05 (abs.)</p> <p>Added Water 20 ± 5 (abs.)</p> <p>Synthetic milk (veg. oil, urea, detergent, water) 20 ± 5 (abs.)</p> <p>Non-milk fat 1.5 ± 0.5 (abs.)</p> <p>Sweeteners (sucrose, maltodextrin) 0.9 ± 0.5 (abs.)</p>

Sno	Equipment Name	Required Specifications																								
		<p><b>Adulteration Detection (non-specific adulterants)</b> In case the milk has been contaminated with substantial volume of unknown adulterant the instrument could detect it</p> <p>*Adulterants detection limit: in the range of milk fat 1.5% to 9%</p> <p><b>Parameters (Ultrasonic):</b></p> <table><tr><td>Fat</td><td>0.5% ÷ 12% ± 0.1% (abs.)</td></tr><tr><td>Solids non Fat (SNF)</td><td>6% ÷ 12% ± 0.2% (abs.)</td></tr><tr><td>Milk Density (g/cm3)</td><td>1.0200 ÷ 1.0400 g/cm3 ± 0.0005 (abs.)</td></tr><tr><td>Protein</td><td>2% ÷ 6% ± 0.2% (abs.)</td></tr><tr><td>Freezing Point</td><td>0 ÷ -1.000 °C ± 0.015°C (abs.)</td></tr><tr><td>Added Water to Milk</td><td>0% ÷ 60% ± 5% (abs.)</td></tr><tr><td>Lactose</td><td>0.5% ÷ 7% ± 0.2% (abs.)</td></tr></table> <p>ENVIRONMENTAL CONDITIONS</p> <table><tr><td>Ambient air temperature</td><td>15° - 35°C</td></tr><tr><td>Milk temperature</td><td>5° - 35°C</td></tr><tr><td>Relative humidity</td><td>30% - 80%</td></tr></table> <p><b>POWER SUPPLY</b></p> <table><tr><td>AC Power Supply voltage</td><td>100 - 240 V AC +10/-15%</td></tr><tr><td>Power Consumption</td><td>50W max</td></tr></table>	Fat	0.5% ÷ 12% ± 0.1% (abs.)	Solids non Fat (SNF)	6% ÷ 12% ± 0.2% (abs.)	Milk Density (g/cm3)	1.0200 ÷ 1.0400 g/cm3 ± 0.0005 (abs.)	Protein	2% ÷ 6% ± 0.2% (abs.)	Freezing Point	0 ÷ -1.000 °C ± 0.015°C (abs.)	Added Water to Milk	0% ÷ 60% ± 5% (abs.)	Lactose	0.5% ÷ 7% ± 0.2% (abs.)	Ambient air temperature	15° - 35°C	Milk temperature	5° - 35°C	Relative humidity	30% - 80%	AC Power Supply voltage	100 - 240 V AC +10/-15%	Power Consumption	50W max
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Lactose	0.5% ÷ 7% ± 0.2% (abs.)																									
Ambient air temperature	15° - 35°C																									
Milk temperature	5° - 35°C																									
Relative humidity	30% - 80%																									
AC Power Supply voltage	100 - 240 V AC +10/-15%																									
Power Consumption	50W max																									

Sno	Equipment Name	Required Specifications
54	<b>Portable NIR spectrometer</b>	<p>Quick wavelength calibration for rapid scanning, Auto zero adjustment, Built in SCM technology, Auto background subtraction, Rapid and non-destructive analysis</p> <p>Optical system      Grating monochromator</p> <p>Wavelength range    1000 nm ~ 1800 nm</p> <p>Wavelength accuracy <math>\pm 1</math> nm</p> <p>Detector      InGaAs detector</p> <p>Light source          Halogen lamp</p> <p>Wavelength reproducibility <math>\leq 1</math> nm</p> <p>Wavelength scanning interval 4 nm, 8 nm, 16 nm</p> <p>Absorbance reproducibility 0.002 A (at 0.4 A)</p> <p>Signal to noise ratio <math>\geq 103</math> (at 1500 nm)</p> <p>Scanning time          <math>\leq 2</math> mins</p> <p>Interface              RS232 serial port</p> <p>Power                  AC 110V <math>\pm 10\%</math>; 50 Hz, AC 220 V <math>\pm 10\%</math>; 60 Hz</p>
	<b>NMR</b>	Operating Frequency: 80 MHz (1H)

Sno	Equipment Name	Required Specifications
55		<p>Nuclei: <sup>1</sup>H-only, <sup>1</sup>H/<sup>13</sup>C, <sup>1</sup>H/<sup>31</sup>P or <sup>1</sup>H/<sup>129</sup>Xe (contact us for more)</p> <p><sup>1</sup>H Sensitivity: &gt; 160:1 for 1% Ethyl Benzene (<sup>1</sup>H/<sup>13</sup>C system, incl. pulsed field gradient)</p> <p>Gradient strength: &gt; 0.25 T/m (25 G/cm)</p> <p>Automation: PAL sample changer; up to 120 samples + 12 reference samples</p> <p><sup>1</sup>H Resolution: &lt; 0.4 Hz @ 50% peak height</p> <p>&lt; 16 Hz @ 0.55% peak height</p> <p>Digital Lock: External, no deuterated solvents needed</p> <p>Sample Tubes: standard 5mm diameter, 7"-long NMR tubes</p> <p>Dimensions: ~50 cm x 70 cm x 60 cm (Height x Width x Depth)</p> <p>Weight: ~94 kg</p> <p>Lab Temperature: 18-28°C</p> <p>Lab Infrastructure needed: No liquid nitrogen or helium required</p> <p>no water cooling required, no additional venting required</p> <p>power: 100 – 240 V, 50 – 60 Hz</p>

Sno	Equipment Name	Required Specifications
56	<b>ULT Freezer Chest (-80 °C)</b>	<ul style="list-style-type: none"> <li>Freezer can maintain temperatures of -50 °C or colder within your freezer for at least 8 – 10 hours in case of power failure.</li> <li>On-board data storage to keep track of freezer data and optional real time data monitoring</li> <li>Easily transfer your information to your computer or colleague using the export feature and USB port</li> <li>Up to three different interfaces (Ethernet, RS485, BMS) for flexible connections</li> <li>Vacuum release control for easy door opening</li> <li>Cooling liquid R404A / R508B</li> <li>Cooling liquid classic cooling liquids</li> <li>Cooling type air cooling</li> <li>Heat output 720 W</li> <li>Number of shelves 3 shelves</li> <li>Insulation Vacuum insulation paneling / polyurethane foam</li> <li>Capacity 535 L (18.9 ft³)</li> <li>No. of internal doors 3</li> <li>No. of compartments 3</li> <li>Max. racks per freezer 12</li> <li>Display classic interface</li> <li>Noise level 56 dB</li> <li>Wall thickness Type B</li> </ul>

Sno	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>• Power supply 230 V, 50 Hz</li> <li>• Average Daily Consumption 13.2 kWh/day</li> <li>• Footprint (WxD) 80 x 86.7 cm</li> <li>• Weight w/o accessories 250 kg / 551 lb</li> <li>• Temperature range -50 °C to -86 °C</li> <li>• Less than 4 hours Pull-down time to -80 °C</li> </ul>
57	<b>Freeze Dryer</b>	<p>Bulk tray Freeze Dryer, Precise control and program flexibility with consistent performance, Materials/Samples for freeze drying: liquid (blood/milk), feed, forage and faeces.</p> <p>Shelf temperature At least -30 °C to +60 °C</p> <p>Condenser temperature: At least -55 °C</p> <p>Temperature range: -40°C to +40°C</p> <p>Type: Stoppering tray dryer</p> <p>Include: 3 shelves, 6-Port Manifold, Isolation valve</p> <p>Three 16.5 x 12 inch, temperature-controlled (<math>\pm 1^\circ \text{C}</math>), adjustable shelves with sample temperature sensors, Chamber pre-freezing samples to save time and money by eliminating need for separate freezer and product transfer, Environmentally-friendly HCFC/CFC-free refrigeration system, Built-in pneumatic mechanism stoppers containers on all three shelves, Up to 594 sq.</p>

Sno	Equipment Name	Required Specifications
		<p>inches of shelf space, Circulating fluid in shelves ranges from –40 and +40° C, Nearly upto 0.155 m<sup>2</sup> of shelf space, Clear acrylic viewing door for complete visibility of shelves, 1/8 in. OD backfill port introduces sterile air or inert gas from outside source to chamber, protecting samples from atmospheric moisture and contaminants, Real time display of freeze dryer and tray dryer parameters on 5 in. full color, capacitive touch screen, Data may be exported via USB or Ethernet, Microprocessor-based controller for different (n = 30) temperature programs to be stored and repeated, each using up to 16 different steps, Digital display, Display provides navigation to manual or program mode, probe temperatures, vacuum in mBar, Torr or Pa, step of program in progress, time remaining in present step, and end of program, as well as alarms, 6-Port tray dryer manifold accommodates either 1/2 inch or 3/4-inch flask adapters and connect to flasks and other glassware, Freeze dryer, vacuum pump with displacement of at least 163L/minute, and freeze dry glassware along with all accessories.</p> <p>Electricity AC 220V</p> <p>Standard warranty</p> <p>All accessories</p> <p>Installation, successful running and training of staff on the equipment will be an integral responsibility of the supplier, security</p>

Sno	Equipment Name	Required Specifications
58	<b>Upright Frost Free Vertical Deep Freezer (-25 °C)</b>	<p>Memory backup</p> <p>Digital temperature display as standard feature</p> <p>Front access calibration for temperature</p> <p>Single electrical box makes servicing easier</p> <p>Control panel can be reset to zero for calibration</p> <p>Alarm &amp; Recording system</p> <p>High/low temperature alarm</p> <p>Power failure alarm</p> <p>Remote alarm contact</p> <p>Self-diagnostics function</p> <p>Interior Dimension:           790(W) x 440(D) x 715(H)</p> <p>Capacity:                       221 litres / 7.8 cu.ft.</p> <p>Temperature range:       -20°C to -30°C</p> <p>Ambient Temp:               35°C</p> <p>Baskets:                       3</p>



Sno	Equipment Name	Required Specifications
		<p>Compressor: Hermetic</p> <p>Alarm system: High/low temperature alarm (adjustable <math>\pm 5</math> to <math>\pm 15</math>),</p> <p>Power failure, Remote alarm contact</p>
59	Vortex mixture	<p>Bench top with variable speed control</p> <p>Vortexing speed from 0 to 3200 rpm</p> <p>Touch mode and continuous modes of operation</p> <p>Light weight and easy to operate</p> <p>CE-marked models available</p> <p>Orbit: 4.9 mm</p> <p>Speed Knob: Variable 1 to 10 dial marks</p> <p>Controls: 3-way power switch</p> <p>Speed control: 0 - 3,000 rpm</p> <p>Choice of continuous or touch modes</p> <p>Variable speed control (1 to 10 dial marks)</p> <p>Electricity AC 220V</p>

Sno	Equipment Name	Required Specifications
		<p>Standard warranty</p> <p>All accessories</p> <p>Installation, successful running and training of staff on the equipment will be an integral responsibility of the supplier, security</p>
60	<b>Ultrasonic bath sonicator digital</b>	<p>Extremely powerful mixing and cleaning</p> <p>Fully adjustable power - 7 levels from 30% - 100%</p> <p>4 modes: cleaning, dissolving, degassing, intense mixing/cleaning</p> <p>Dual frequency- 37 kHz standard, 80 kHz delicate</p> <p>Convenient digital display of all parameters</p>
61	<b>Micro Filtration Assembly</b>	<p>Supplied with a 40-60 micron porosity fritted glass support base, a 1 L graduated funnel, an anodized aluminum clamp and a #8 silicone stopper</p> <p>Prefilter size is 35 mm</p> <p>Approximate filter area is 9.6 cm<sup>2</sup></p> <p>Connection to our 1 liter filtration flask (available as an accessory) is made with a silicone stopper</p>

Sno	Equipment Name	Required Specifications
		<p>Manufactured from 33 expansion, low extractable borosilicate glass conforming to USP Type I and ASTM E438, Type I, Class A requirements</p> <p>Should include vacuum pump</p>
62	<b>Milli-Q water/water purifier</b>	<ul style="list-style-type: none"> <li>- Frequency 50/60 Hz</li> <li>- Feedwater Connector 3/4 in. NPT</li> <li>- Product Water Type Type I and 2</li> <li>- TOC Monitor with UV Intensity Monitoring = yes</li> <li>- Type Water Purification System</li> <li>- Resistivity Type 1: 18.2 Mohm.cm at 25°C; Type 2: 10 to 15 Mohm.cm at 25°C</li> <li>- Conductivity Type 1: 0.055µS/cm, Type 2: 0.067 to 0.1µS/cm</li> <li>- Feed water Source Tap</li> <li>- Flow Rate 0.6 L/min.</li> <li>- Total Organic Carbon 1 to 5 ppb</li> <li>- Endotoxin Concentration 0.005 EU/mL</li> <li>- Bacterial Content &lt;0.01 CFU/mL</li> <li>- Particles &gt;0.2µM/mL &lt;1</li> <li>- Feed Water Monitoring No</li> </ul>

Sno	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>- Feedwater Pressure 1 to 6 bar</li> <li>- Height (Metric) 545 mm</li> <li>- Width (Metric) 305 mm</li> <li>- Net Weight (Metric) 22 kg</li> <li>- Operating Pressure 1 to 6 bar</li> <li>- Voltage 100/240 V</li> <li>- Bacterial retention 99%</li> <li>- Depth (Metric) 400 mm</li> <li>- Model Smart2Pure 12 UV/UF</li> <li>- Permeate performance 12 L/hr. at 10°C</li> <li>- Power Consumption 0.06 kW</li> <li>- RO Flow Rate 12 L/hr.</li> <li>- Electrical Requirements 100/240 V 50/60 Hz</li> <li>- Includes RO/pretreatment cartridge, an ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator, UV lamp and UF filter.</li> <li>- Unit Size Each</li> </ul>
	<b>Still camera</b>	High-end DSLR camera

Sno	Equipment Name	Required Specifications
63		<p>sharp 24MP images</p> <p>max resolution 6016 x 4016</p> <p>Relatively large, FX format,</p> <p>CMOS sensor size 35.9 x 24 mm</p> <p>sensitivity of ISO 100 - 6400 with Hi-2 (ISO 25,600)</p> <p>Continuous Shooting speed of 6 fps</p> <p>Li-Ion EN-EL15 rechargeable battery,</p> <p>Optical viewfinder and much more.</p> <p><b>AF-S 24-120 ED VR</b></p> <p>Focal length: 24-120mm</p> <p>Maximum aperture: f/4</p> <p>Minimum aperture: f/22</p> <p>Lens construction: 17 elements in 13 groups (with two ED glass and three aspherical lens elements, and Nano Crystal Coat)</p> <p>Angle of view: 84° - 20°20' (61° - 13°20' with Nikon DX format)</p> <p>Minimum focus distance: 0.45 m/1.5 ft. (throughout the entire zoom range)</p> <p>Filter-attachment size: 77mm</p> <p>Diameter x length (extension from lens mount): Approximately 84 x 103.5 mm/3.3 x 4.1 in.</p>
65	Glassware drying cabinet	Presents an optimized range of drying cabinets for laboratory glassware

Sno	Equipment Name	Required Specifications
		<p>Easy to use and have functional and practical equipment, at very attractive prices</p> <p>Performance:</p> <p>drying cabinets are used to dry and store glassware at a maximum temperature of 60°C</p> <p>Dimensions:</p> <p>Working volume: 800 liters</p> <p>Internal dimensions (W x D x H): 900 x 600 x 1480mm</p> <p>External dimensions (W x D x H): 946 x 741 x 1836mm</p> <p>Stainless steel shelves:</p> <p>Quantity of shelves (provided/maximum): 3/12</p> <p>Max load on shelf/total: 40/200kg</p> <p>Power supply and various:</p> <p>Electrical supply: 230V single-phase + ground 50Hz</p> <p>Standard heating power (60°C): 2000W</p> <p>Number of doors: 2</p>
66	<b>Glassware (Beakers, Flasks, Cylinders, Pipettes etc.)_PYREX</b>	<p><b>Beaker (PYREX)</b> Borosilicate Glass 10 mL, 20 mL, 50 mL, 100 mL, 250 ml, 500 ml, 1000 mL</p> <p><b>Graduated cylinder (PYREX)</b> Borosilicate Glass</p>

Sno	Equipment Name	Required Specifications
		<p>10 ml, 25 ml, 50 ml, 100 ml, 250 ml, 500 ml</p> <p><b>Funnel (PYREX)</b></p> <p>Borosilicate Glass</p> <p>50mm, 75mm, 90mm</p> <p><b>Conical Flask (PYREX)</b></p> <p>Wide range of laboratory experiments Pyrex Borosilicate Glass Narrow Neck Erlenmeyer Flask</p> <p>25 mL, 50 mL, 100mL, 250mL, 500mL</p> <p><b>Volumetric flasks (PYREX)</b></p> <p>Pyrex Borosilicate Glass</p> <p>50 mL, 100mL, 250mL, 500mL, 1000 mL, 2000 mL</p> <p>Gooch Crucible</p> <p>Material: PYREX</p> <p>Porosity (40 to 60 <math>\mu</math>m)</p> <p>For higher temperatures, use electric furnace: Maximum temperature: 250</p> <p>50 mL</p>

Sno	Equipment Name	Required Specifications
		<p>Conical Flask</p> <p>Wide range of laboratory experiments Pyre Borosilicate Glass Narrow Neck Erlenmeyer Flask</p> <p>25 ml, 50 ml, 100 ml, 300 ml, 500 ml</p> <p>Glass Graduated Pipette</p> <p>Pipettes are made of glass+Rubber, non-toxic and odorless, thick and durable.</p> <p>1 ml, 2 ml, 5ml, 10ml, 15ml, 20 ml, Dropper with Big Rubber Cap Dropping Lab Pipette Transfer for Liquid Essential Oil</p> <p>Micro Pipette</p> <p>0.2-2 uL, 1-10 uL, 2-20 uL , 20-100 uL</p> <p>Burettes:</p> <p>burette, straight stopcock, accuracy: <math>\pm 0.03</math> mL, clear borosilicate glass 3.3 (Schellbach stripes, PTFE spindle)</p> <p>automatic and high accuracy</p> <p>Size: 10, 25, 50, 100mL</p> <p>Volumetric Flask</p>



Sno	Equipment Name	Required Specifications
		<p>Wide range of laboratory experiments Pyre Borosilicate Glass Narrow Neck Erlenmeyer Flask</p> <p>50 ml, 100 ml, 250 ml, 500 ml, 1000 ml, 2000 ml</p> <p><b>Glass Funnel</b></p> <p>Funnel is made of borosilicate glass and has a Powder funnel are great for solid substances due to their short, wide stem</p> <ol style="list-style-type: none"> <li>1. Short Stem</li> <li>2. Long Stem</li> </ol> <p>25 mm diameter</p> <p>50 mm diameter</p> <p>100 mm diameter</p> <p><b>Berzelius beakers heavy</b></p> <p>Mechanically stronger than standard beakers</p> <ul style="list-style-type: none"> <li>• Designed for longer life and increased user safety</li> <li>• Reinforced rims and spout, less prone to breakage during washing etc.</li> <li>• Thicker walls and heavier bases</li> </ul>

Sno	Equipment Name	Required Specifications
		<ul style="list-style-type: none"> <li>• Manufactured from Pyrex® borosilicate glass</li> <li>• Printed with Trace Code for downloadable batch certificate</li> <li>• White graduations and marking spot duty, tall form, with printed trace code 100mL, 150mL, 250mL size</li> </ul> <p><b>Glass Petri Dish Petri Plates</b></p> <p>25mm, 50mm, 100mm, 150mm diameter</p>
67	<b>Computer/Printers with central work station Desktop</b>	<p>Processor: 10th or 11th Gen Intel Core i5, i7 or i9 Processor, or Apple M1 Processor (CPU) Operating System: Microsoft Windows 10 Home, Pro, Enterprise or Education version Or macOS 10.15.X “Catalina” or 11.X “Big Sur.”</p> <p>Office Suite: Microsoft Office 365 for Windows or Macintosh. Microsoft Office 365 is available for no-cost download for all enrolled students.</p> <p>Memory (RAM): 8-16 GB of RAM</p> <p>Storage: GB solid state drive, or larger.</p> <p>Video/Graphics: Integrated or Discrete graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal).</p>

Sno	Equipment Name	Required Specifications
		<p>Monitor: for notebook: 13" – 17" display for desktop: 19" – 27" widescreen flat-panel display</p> <p>Mouse: Built-in or external trackpad, wireless and/or USB, 2-button, optical mouse</p> <p>Sound: Sound card or built-in audio, and speakers</p> <p>Headphones: Headphones or Earbuds, with Built-in Microphone</p> <p>Webcam: Either external USB device or built-in</p> <p>Network: 802.11ac Wi-Fi capability.</p> <p>Warranty: 3 year on-site (better) or depot warranty, accidental damage service highly recommended.</p>
	<b>Laptop</b>	<p>Intel Core i7 1.8 / 4.9 GHz Processor 10th Gen, 14-inch Anti-glare Full HD Display (1920x1080) 8GB RAM, 512GB SSD, HDMI, Backlit Keyboard</p> <p>Screen Size : 14"</p> <p>Screen Resolution : 1920 x 1080</p> <p>Operating System : DOS</p> <p>Generation : 10th Generation</p>

Sno	Equipment Name	Required Specifications
		Processor Type : Intel Core i7 Processor Speed : 1.8 GHz Processor Turbo : 4.9 GHz (Up to) Processor Cache : 6 MB RAM : 8GB RAM Type : DDR4 HDD Interface : SSD Hard Disk Capacity : 512GB SSD HDD RPM : RPM n/a Graphics : Intel Integrated Graphics USB Ports : 2 ports HDMI : Yes Webcam : Yes Backlit Keyboard : Yes Bluetooth : Yes

Sno	Equipment Name	Required Specifications
		Wi-Fi : Yes  Fingerprint Reader : Yes
	<b>Printer</b>	Color LaserJet Pro Printer  Print speed, black (normal): Up to 22 ppm  Print speed, color (normal): Up to 22 ppm  Monthly duty cycle: Up to 40,000 pages  Print Technology : Laser  Display : 2.7" color graphic touch screen  Processor speed : 800 MHz  Connectivity, standard: Hi-Speed USB 2.0 port; built-in Fast Ethernet 10/100Base-TX network port; 802.11n2.4/5GHz wireless; Walkup host USB port  Memory, standard: 256 MB DDR, 256 MB NAND Flash  Memory, maximum: 256 MB DDR, 256 MB NANDFlash  Paper handling input, standard: 250-sheet input tray  Paper handling output, standard: 100-sheet output bin

Sno	Equipment Name	Required Specifications
		<p>Power consumption: 337 watts (active printing), 7.2 watts (ready), 0.8 watt (sleep), 0.6 watt (Manual-Off), 0.05 (Auto Off/Manual On), 0.6 watt (Auto Off/Wake on LAN)</p> <p>Energy efficiency: ENERGY STAR® qualified; EPEAT® Silver</p> <p>Dimensions (W X D X H): 15.4 x 16.5 x 9.7 in</p> <p>Weight : 32.6 lb</p>
	<b>Movie camera</b>	<p><b>Mirrorless Digital Camera with 18-135mm Lens</b></p> <ul style="list-style-type: none"> <li>• 24.2MP APS-C Exmor CMOS Sensor</li> <li>• BIONZ X Image Processor</li> <li>• XGA Tru-Finder 2.36m-Dot OLED EVF</li> <li>• 3.0" 921.6k-Dot Tilting Touchscreen LCD</li> <li>• Internal UHD 4K Video &amp; S-Log3 Gamma</li> <li>• S&amp;Q Motion in Full HD from 1-120 fps</li> <li>• 5-Axis SteadyShot INSIDE Stabilization</li> <li>• 4D FOCUS with 425 Phase-Detect Points</li> <li>• Up to 11 fps Shooting and ISO 51200</li> <li>• E 18-135mm f/3.5-5.6 OSS Lens</li> </ul> <p><b>Sigma 16mm f/1.4 DC DN Contemporary Mount Lens</b></p>

Sno	Equipment Name	Required Specifications
64		E-Mount Lens/APS-C Format 24mm (35mm Equivalent) Aperture Range: f/1.4 to f/16 3 FLD, 2 SLD, and 2 Aspherical Elements Super Multi-Layer Coating Stepping AF Motor Rounded 9-Blade Diaphragm Weather-Sealed TSC Construction
68	PPEs and Lab Safety Equipment	Front Face protection shield with head cover Laboratory coat Nitrile Gloves Safety glasses Eye wash station Spill kit Fire extinguisher Sink with eyewash First aid kit Emergency phone

Sno	Equipment Name	Required Specifications
		Waste disposal containers for broken glass, chemical waste, plasticware, paper



**SECTION V QUALIFICATION AND EVALUATION CRITERIA**

## QUALIFICATION CRITERIA (MUST MEET CRITERIA)

For factors retained in the Bid Data Sheet pursuant to ITB 25, Following quantification methods will be applied, submitted bids will be reviewed to determine compliance with Procuring Entity's mandatory requirements which serves the purpose to evaluate the responsiveness and eligibility of the bidder and equipment/ items proposed. Only bids found to be responsive and eligible will be further evaluated for technical criteria. The Bidder shall furnish documentary evidence to demonstrate that the bidder and Food Testing Equipment/ items it offers meet the following Qualification/ Eligibility requirement:

**i. Mandatory Compliance Certificate:**

21 CFR compliance, for all equipment/ items under Category-A.

**ii. Verification:**

The validity of the Bidder requires that all relevant forms be signed by authorized person or persons.

**iii. Compliance to Agreement:**

Accepting all the conditions set forth in these Bid Solicitation Documents by signing and stamping all the pages of the bidding document by the bidder each page of the SBD i.e ITB, GCC, SCC, Bid Data Sheet, Addendums / Corrigendum (*if any*), Technical Requirements and other mandatory Form's provision etc.

**iv. Authorization:**

- a) If **Bidder is not manufacturer:** but Authorized dealer of the original manufacturer in procuring entity's country offering the Goods on behalf of the Manufacturer under Manufacturer's Authorization Form (Section VII, Bidding Forms).

**v. Registration of firm/company:**

Registered as a legal entity authorized to enter into contracts for provision of services and goods. As a proof, the bidder should provide a certified copy of Certificate of Incorporation or other documents setting forth the legal basis of the company:

- a) If **Bidder is Original Manufacturer:** is offering to supply Goods which the bidder manufactures or otherwise produces. The Bidder must submit documentary evidence that it is incorporated in the country of manufacture of the Goods and country of Procuring Entity
- b) If bidder is authorized Agent of the original manufacturer in the procuring entity's country Proprietorship of a well-established Authorized Agent of the original manufacturer, including documentation regarding the company's legal status and registration under relevant law of Khyber Pakhtunkhwa or Government of Pakistan.

**vi. Tax Registration:**

Sales & Income Tax registration of the bidder is required as:

- a Valid Income Tax Registration
- b Valid General Sales Tax Registration
- c Bidder must be active taxpayer and listed as an active taxpayer on the respective websites of relevant taxation authorities.
- d As per **Rule No (37)(A) of KPPRA Rules 2014** For Service Level Agreement All bidders are required to be registered with the Khyber Pakhtunkhwa Revenue Authority (**KPRA**), established under the Khyber Pakhtunkhwa Finance Act, 2013 (Khyber Pakhtunkhwa Act No. XXI of 2013

**vii. Bid Security:**

Offers must include required Bid Security of **2%** of the bid cost. An Affidavit in this regard shall be included with technical proposal without mentioning the amount of bid security. Bid Security shall be submitted with the financial bid and from the account of the bidder / firm.

**viii. Price/Bid Validity:**

Offers must meet required Price Validity of **180 Days** from Bid Opening date.

**ix. An Affidavit on Judicial stamp paper of Rs.100 or more** submitting following clauses that:

- a. Only genuine manufacturer's warranty for replacement and not repair of the complete equipment and parts shall be done during the warranty period.
- b. That the bidder / firm will provide all durables, consumables, re-agents etc for each equipment throughout the useful life & beyond useful life of each equipment.
- c. That the firm is never blacklisted on any grounds whatsoever.
- d. That the country of origin of equipment is mentioned clearly and correct along with Brand / Manufacturer's Name.
- e. Standard Accessories as a part and parcel of the equipment are clearly mentioned and provided.
- f. That the Bidder will provide after sales services beyond the period of warranty.
- g. That bidder has submitted Bid Security amounting to 2% of the proposed bid inside financial proposal.
- h. That the firm is never blacklisted on any grounds whatsoever by any of Provincial or Federal Government Department, Entity, Organization or autonomous body or Private Sector Organization anywhere in Pakistan.
- i. That bidder has declared Conflict of Interest (*if any*), along with Bid Solicitation Documents.
- j. That the country of origin of equipment / item is mentioned clearly and correct along with Brand / Manufacturer's Name.
- k. That the Bidder will only provide Fresh, New and Genuine Goods / Items.

Technical bids of only those Bidders/ firms will qualify for Technical Evaluation which meets all of the above-mentioned criteria. Each Bid / proposal will be evaluated individually for each equipment/ item in order to achieve maximum value for money and economy for each equipment / item.

The Evaluation procedure will be conducted exclusively based on available information specified here in these Bid Solicitation Documents.

## **TECHNICAL EVALUATION METHODOLOGY (TOTAL SCORE = 70)**

Technical Evaluation is based on Evaluation and comparison of Compliance & Conformity with requirements including but not limited to:

### **TECHNICAL EVALUATION CRITERIA (SCORE=70)**

#### **Quality:**

- a. **Product Quality:** Evaluation of quality will be based on Proposed equipment registration for quality, standards / accreditation in the country of its origin with relevant international quality and standards certification body. i.e., if a product of USA has been proposed then (US-FDA), if a product of Japan has been proposed then (Japan Industrial Standards-JIS) & in case of Europe registration with (European Commission-EC) etc. Relevant standards certification bodies have been provided in Section-IV under each Equipment/ item.
- b. Minimum Two valid certificates shall be provided for Category A items.
- c. Certificate of US Food and Drug Administration (US-FDA), 510K of the quoted model.
- d. Certificate of European community medical devices directive (CEMDD/IVD98/79EC) (Full Quality Assurance or Product Quality Assurance) for the quoted model issued by IAF accredited body.
- e. Certificate of conformity, Declaration of Conformity, CE Technical documentation review, Compliance Report etc. will not be considered as CE certificate.
- f. Certificate of Ministry of health labor and welfare Japan (MHLW) of the quoted model/manufacturer. (Translated English Version)
- g. Non provision of Two mandatory valid certificates shall lead to disqualification of the item.

**Compliance/Conformity with requirements:** By comparing proposed equipment with the specifications of requirements to determine the degree to which the Goods, meet or exceed the Technical Specifications, specified by procuring entity in the **“Schedule of Requirements”**.

**Product Performance and Productivity:** Extent of Purpose, Performance, capacity, or functionality features meet or exceed the levels specified in the performance / functional requirements and/or influence the life-cycle cost.

#### **Sample Evaluation:**

Samples of equipment in Category (B, C & D) proposed by bidder / firm for evaluation will be first verified for the Technical & Performance specifications proposed by the bidder. After satisfying itself for conformity of equipment / item with technical specification. During sample demonstration bidder will demonstrate Technical, Performance & functional characteristic of equipment/ item consisting of the determination of one or more characteristics of a given product, process or service according to a generally acceptable procedure. Bidder must demonstrate the Accuracy, Repeatability, Resolution & Precision etc. of each proposed equipment.

In case where bidder may not be able to demonstrate sample of an equipment due to imported item not available in country, size of equipment, installation requirements in such case bidder must submit original manufacturer's catalogue, brochure, data sheet of equipment.

**Please Note: Samples provided by the bidders for Technical Evaluation must meet the requirements and specifications set here in these Bid Solicitation Documents. Any sample not meeting the requirement will be rejected and equipment will be disqualified from the evaluation process. All Samples will be evaluated in comparison with specifications published here in these bid solicitation documents at Section-IV "Schedule of Requirements"**

**Company's / Bidders capacity and Capability:**

To perform the contract. Capacity and Capability will be measured in terms of following:

**a) Financial Capabilities:**

Submission of signed / attested audit reports for the last consecutive three years along with financial statements for the past three fiscal years and shall meet the following basic financial criteria:

Annual Sales tax returns.

**iv. Bidder's / firms Experience:**

**a. Specific Experience:**

List of same product deliveries/services provided over the last 3 years with details, dates and recipients (whether in the public or private domain). Certificate from user for satisfactory delivery shall be submitted.

**b. General Experience:**

List of same product deliveries/services provided over the last 3 years with details, dates and recipients (whether in the public or private domain). Certificate from user for satisfactory delivery shall be submitted. In similar business, experience will be counted from day of registration.

**The Certificate should NOT be older than 03 years.**

**v. Delivery Schedule:**

Procuring Agency requires all the equipment to be delivered within -Five (45) days from the day of the award of the contract or issuance of Purchase Order.

**vi. Scope of Services:**

Bidder's capability in terms of post award services which includes:

**a. Warranty:** Standard manufacturer warranty is compulsory. However, the procuring entity will award score requires All such warranties for the goods shall remain in effect for a period as specified for each equipment and / or as specified in Technical Evaluation Criteria of one (1) year or for such other longer period that the original manufacture or authorized dealer of original manufacturer Bidder normally provides for such goods or a longer period agreed upon in this Contract after the goods are placed in use (the "Warranty Period")

**b. Technical Support & After Sales Services.** Evidence and capability of firm/Bidders/ manufacturer for technical support & after sales service beyond warranty period. Evidence and capability of firm/Bidders/ manufacturer for technical support & after sales service during & beyond warranty period. After Sale Satisfactory performance certificate (verifiable) of the firm in last six years, on letter head, signed and stamped for the quoted

model or previous provided model of equipment from the public sector Institutes/ Semi Government or Private organizations of Pakistan. Performance certificate shall be coupled with supply order / purchase order from public sector Institutes/ Semi Government or Private organizations of Pakistan

- c. **Established Office / Service Center:** Distance office / service center complete with maintenance & 24/7 support facilities from the HQ of the procuring agency.

Technical Evaluation of the bid has been allotted 70 marks / score to Category (A, B, C, D). Bids will be scored for 70 points. To qualify the technical evaluation minimum 70% or (49) marks must be achieved to qualify for financial evaluation.

$$= (70 \times 70) \div 100 = 49$$

<b>Technical Evaluation Weight</b>	<b>70%</b>
<b>Financial Evaluation Weight</b>	<b>30%</b>
<b>Total</b>	<b>100%</b>

### SCORING AND WEIGHING PRINCIPLES

Scores will be awarded to bidders A Bidder / firm or proposed Goods will "Meet" requirements when all Technical & Performance specification of offered Goods matches the requirements set by Procuring Entity herein these bid solicitation documents without any minor deviation.

A Bidder / firm or proposed Goods will "Exceed" requirements when all Technical & Performance specification of offered Goods not only matches the requirements but also 50% of the Technical & Performance specification offered Goods are better than requirements specified herein these bid solicitation documents. e.g., in case of "Accuracy of an equipment/ item required is  $\pm 0.2$  and the offered equipment/ item Accuracy  $\pm 0.1$  same will be considered exceeding requirement

The Technical Evaluation Committee will evaluate and score bids in accordance with the quality of Technical Bid in terms of:

- ❖ Extent that bidder / firm **Meets** the criteria set for award of contract. i.e., the bidder/ firm has same capabilities as required here in the Bid Solicitation Documents.
- ❖ Extent that the bidder proposed specifications **Meets** or **Exceeds** the Specifications set herein these Bid Solicitation Documents for the same item.
- ❖ Extent that proposed equipment/ items exceeds the **Performance & Productivity** measures set under specifications of requirements.
- ❖ Extent that bidder proposed equipment / item exceeds the level of **Capacity, or Functionality** features specified under specifications of requirements.
- ❖ Extent that **samples provided** meets or exceeds the **Level of Specifications** of requirements set in this SBD and **Performance & Technical** specifications provided / proposed by bidder / firm in its bid.

### Financial Evaluation and Scoring System for Bids

(Maximum Allocable Marks Score = 30 marks)

The financial bids of technically qualified bidders will be opened publicly at the time to be announced by the Procuring Agency and the financial bids found technically non-responsive shall be returned un-opened to the respective Bidders.

Total Allocable marks for Technical Proposal = 70

Total Allocable marks in Financial Proposal= 30

Total Combined Allocable Score for individual bids =Marks obtained in Technical Evaluation + Marks obtained in Financial Evaluation = 100

### **Scoring Methodology:**

Contract will be awarded to the best evaluated fair and responsive bidder whose product ranks highest in the Combined Evaluation scoring calculated through the Marks awarded to Technical Proposal and Financial Proposal as stated in the Bid Data Sheet of these Standard Bidding Documents.

The Evaluation Methodology is a combination of non-price factors (in Technical Criteria) and price factor (in Financial Criteria); and each having points as elaborated in the evaluation preforms provided in these SBDs.

**Procedure for the Marks Scoring:** Marks will be awarded or otherwise for various technical parameters to each quoted product based on the prescribed Technical and Financial criteria. The total combined marks will determine the highest-ranking product in each product category for contract award.

**The formula to calculate the marks for the price by the bidders other than lowest bidder is given below:**

**Financial Evaluation Score of individual quoted Product** = [Lowest quoted Price of the item ÷ Next higher proposed Price of the competing item] × Total allocable financial score

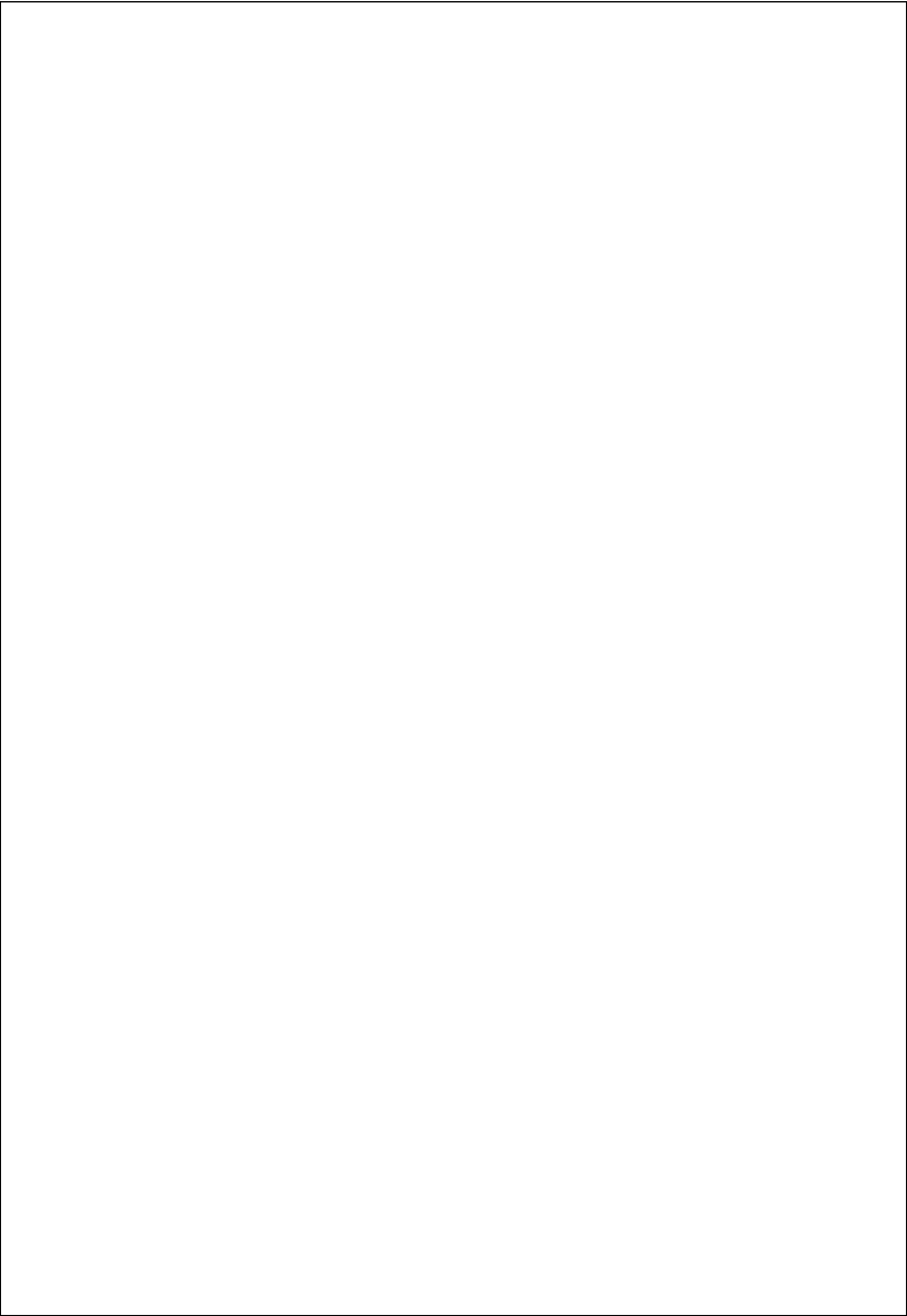
### **Solved Example of Financial Scoring** \_\_\_\_\_ :

If the lowest quoted price of an item is Rs. 86/-, the same lowest bidder will obtain score as below: =  $[86 \div 86] \times 30$

=30 marks, being the lowest bidder for the quoted item.

- If the next higher quoted price of the same item is Rs. 105/-, the marks obtained will be: =  $[86 \div 105] \times 30 = 24.57$  Marks

If the next higher quoted price of the same item is Rs. 130/-, the marks obtained will be: =  $[86 \div 130] \times 30 = 19.84$  Marks .... And so on.





### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-A EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
i	<b>Quality</b>	<b>20</b>		
A	Product Quality (Minimum Two valid certificates shall be provided for <b>Category A</b> items)	10	a. Proposed equipment registered & certified with international quality & standards accreditation body. (2I CFR compliance / 510K, CEMDD, JIS Ministry of health Labor & Welfare.	<b>10</b>
			b. Proposed equipment is not registered & certified with international quality & standards accreditation body.	<b>0</b>
b	Compliance/Conformity with requirements	10	a. 100% compliance to the specifications / requirements with exceeding specifications.	<b>10</b>
			b. 100% compliance to the specifications / requirements with no exceeding specifications.	<b>08</b>
			c. 90% compliance to the specifications / requirements	<b>05</b>
			d. Below 90% compliance with requirements / specifications and shall lead to disqualification of the item / s	<b>0</b>
ii	<b>Company's / Bidders capacity &amp; Capability</b>	<b>24</b>		
a	Manufacturer Performance	06	a. Valid ISO 13485 Medical Devices Quality Management Systems Certificate issued from IAF accredited body.	<b>02</b>
			b. Valid OSHAS 18001 / ISO 45001 Occupational Health & Safety Series from IAF accredited body.	<b>02</b>
			c. Valid ISO 9001 Quality Management Certificate of the firm from PNAC accredited body.	<b>02</b>
b	Financial Capabilities	06	a. Audit reports of last consecutive 2 years submitted showing 100 million or above annual revenue / turnover	<b>02</b>
			b. Audit reports of last consecutive 2 years submitted showing Rs.50 to Rs.99.9 million annual revenue / turnover	<b>01</b>
			c. Audit reports of last consecutive 2 years submitted showing will be. Less than Rs.50 million annual revenue / turnover	<b>0</b>

### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-A EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
			a. Annual Sales & Income tax returns for last four years submitted	04
			b. Annual Sales & Income tax returns for last three years submitted	03
			c. Annual Sales & Income tax returns for last two years submitted	02
			d. Annual Sales & Income tax returns for last one years submitted	01
c	After Sale Product / Bidder Local Performance	05	a. One mark for each after sale satisfactory performance certificate (verifiable) of the firm in last six years, on letter head, signed and stamped for the quoted model or previous provided model of equipment from the public sector Institutes/ Semi Government or Private organizations of Pakistan. Performance certificate shall be coupled with supply order / purchase order and receiving/ Delivery Challan from public sector Institutes/ Semi Government or Private organizations of Pakistan	05
d	Firm Evaluation Parameters Personnel/Human Resource	07	a. Diploma of Associate Engineer (DAE) in electrical / electronic / biomedical / mechatronics / mechanical / industrial. DAE certificate must be submitted. (0.5 mark for each certificate)	01
			b. Graduate Engineer with PEC Registration in electrical / electronics, biomedical / mechatronics / mechanical / industrial. PEC registration card of the engineer must be submitted. (1 mark for each Engineer)	03
			c. BSc (hons) Electronics / MSc Electronics / B-Tech (hons) in electrical / electronic / biomedical / mechatronics /	01

### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-A EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
			mechanical / industrial. Degree of BSc / MSc / B-Tech (hons) must be submitted. (0.5 mark for each)	
			d. Factory trained technical staff on the quoted Products. (To be verified from the visa, passport & Travelling history). (1 mark for each staff)	02
iii	Workshop facility Testing/ Calibration tools of Equipment	06	Availability of workshop in Pakistan to be verified with Ownership / Rent Agreement with Owner / Rent Agreement with Company Name.	
			a. List of related tools available at workshop. Details shall be submitted with technical bid. (List Attached in BSD)	02
			b. List of Testing and Calibration tools for the quoted items available at workshop. Details shall be submitted with technical bid.	02
			c. Detail of Spare parts availability at workshop for the quoted items. Details shall be submitted with technical bid.	02
5	Bidder's / firms Specific Experience	10	a. 05 supply completion certificates with all relevant documents submitted are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract.	10
			b. 04 supply completion certificates with all relevant documents submitted are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract	08
			c. 03 supply completion certificates with all relevant documents submitted are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract	06

### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-A EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
5	Bidder's / firms General Experience	10	d. 02 supply completion certificates submitted with all relevant documents are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract	04
			e. 01 supply completion certificates with all relevant documents submitted are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract	02
			f. "Zero" (0) score will be awarded for no submission by the bidder.	0
			a. 05 supply completion certificates with all relevant documents submitted issued by purchaser of Semi Government and / or Government Departments for supplying similar goods under similar nature and / or type of contract.	10
			b. 04 supply completion certificates with all relevant documents submitted issued by purchaser of Semi Government and / or Government Departments for supplying similar goods under similar nature and / or type of contract	08
			c. 03 supply completion certificates with all relevant documents submitted issued by purchaser of Semi Government and / or Government Departments for supplying similar goods under similar nature and / or type of contract	06
			d. 02 supply completion certificates with all relevant documents submitted issued by purchaser of Semi Government and / or Government Departments for	04

### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-A EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
			supplying similar goods under similar nature and / or type of contract	
			e. 01 supply completion certificates with all relevant documents submitted issued by purchaser of Semi Government and / or Government Departments for supplying similar goods under similar nature and / or type of contract	02
			f. Zero (0) score will be awarded for no submission by the bidder.	0
	<b>Total Weight:</b> Criteria (i + ii + iii + iv + v) =	<b>70</b>		

### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-B EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
i	<b>Quality</b>	<b>20</b>		
A	Product Quality (Minimum One valid certificates shall be provided for <b>Category B</b> items)	10	a. Proposed equipment registered & certified with international quality & standards accreditation body. (21 CFR compliance / 510K, CEMDD, JIS Ministry of health Labor.	10
			b. Proposed equipment is not registered & certified with international quality & standards accreditation body.	0
b	Compliance/Conformity with requirements	10	a. 100% compliance to the specifications / requirements with exceeding specifications	10
			b. 100% compliance to the specifications / requirements with no exceeding specifications	08

### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-B EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
			c. 90% compliance to the specifications / requirements	05
			d. Below 90% compliance with requirements / specifications and shall lead to disqualification of the item / s	0
ii	Sample Evaluation	16	100% compliance to the specifications / requirements with exceeding specifications	16
			100% compliance to the specifications / requirements with no exceeding specifications	12
			90% compliance to the specifications / requirements	08
			Below 90% compliance with requirements / specifications and shall lead to disqualification of the item / s	0
b	Financial Capabilities	06	d. Audit reports of last consecutive 2 years submitted showing 100 million or above annual revenue / turnover	02
			e. Audit reports of last consecutive 2 years submitted showing Rs.50 to Rs.99.9 million annual revenue / turnover	01
			f. Audit reports of last consecutive 2 years submitted showing will be. Less than Rs.50 million annual revenue / turnover	0
			e. Annual Sales & Income tax returns for last four years submitted	04
			f. Annual Sales & Income tax returns for last three years submitted	03
			g. Annual Sales & Income tax returns for last two years submitted	02
			h. Annual Sales & Income tax returns for last one years submitted	01

### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-B EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
c	After Sale Product / Bidder Local Performance	05	b. One mark for each after sale satisfactory performance certificate (verifiable) of the firm in last six years, on letter head, signed and stamped for the quoted model or previous provided model of equipment from the public sector Institutes/ Semi Government or Private organizations of Pakistan. Performance certificate shall be coupled with supply order / purchase order from public sector Institutes/ Semi Government or Private organizations of Pakistan	05
d	Firm Evaluation Parameters Personnel/Human Resource	07	e. Diploma of Associate Engineer (DAE) in electrical / electronic / biomedical / mechatronics / mechanical / industrial. DAE certificate must be submitted. (0.5 mark for each certificate)	01
			f. Graduate Engineer with PEC Registration in electrical / electronics, biomedical / mechatronics / mechanical / industrial. PEC registration card of the engineer must be submitted. (1 mark for each Engineer)	03
			g. BSc (hons) Electronics / MSc Electronics / B-Tech (hons) in electrical / electronic / biomedical / mechatronics / mechanical / industrial. Degree of BSc / MSc / B-Tech (hons) must be submitted. (0.5 mark for each)	01
			h. Factory trained technical staff on the quoted Products. (To be verified from the visa, passport & Travelling history). (1 mark for each staff)	02
iii	<b>Workshop facility Testing/ Calibration tools of Equipment</b>	<b>06</b>	Availability of workshop in Pakistan to be verified with Ownership / Rent Agreement with Owner / Rent Agreement with Company Name.	

### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-B EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
5	Bidder's / firms Specific Experience	05	d. List of related tools available at workshop. Details shall be submitted with technical bid. (List Attached in BSD)	02
			e. List of Testing and Calibration tools for the quoted items available at workshop. Details shall be submitted with technical bid.	02
			f. Detail of Spare parts availability at workshop for the quoted items. Details shall be submitted with technical bid.	02
			g. 05 supply completion certificates submitted are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract.	10
			h. 04 supply completion certificates submitted are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract	08
			i. 03 supply completion certificates submitted are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract	06
			j. 02 supply completion certificates submitted are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract	04
			k. 01 supply completion certificates submitted are provided issued by purchaser of Semi Government and / or Government Departments for supplying same goods under same nature and / or scope of contract	02



### TECHNICAL EVALUATION CRITERIA FOR CATEGORY-B EQUIPMENT / ITEMS

SNO	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
			l. "Zero" (0) score will be awarded for no submission by the bidder.	0
5	Bidder's / firms General Experience	05	g. 05 supply completion certificates submitted issued by purchaser of Semi Government and / or Government Departments for supplying similar goods under similar nature and / or type of contract.	10
			h. 04 supply completion certificates submitted issued by purchaser of Semi Government and / or Government Departments for supplying similar goods under similar nature and / or type of contract	08
			i. 03 supply completion certificates submitted issued by purchaser of Semi Government and / or Government Departments for supplying similar goods under similar nature and / or type of contract	06
			j. 02 supply completion certificates submitted issued by purchaser of Semi Government and / or Government Departments for supplying similar goods under similar nature and / or type of contract	04
			k. 01 supply completion certificates submitted issued by purchaser of Semi Government and / or Government Departments for supplying similar goods under similar nature and / or type of contract	02
			l. Zero (0) score will be awarded for no submission by the bidder.	0
	<b>Total Weight:</b> Criteria (i + ii + iii + iv + v) =	<b>70</b>		

Technical Evaluation Criteria for Category-C (ICT Equipment)				
Sno	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
1	Warranty	10	a. Minimum Two-year Local Warranty for replacement of parts provided as per requirements specified.	10
			b. Minimum One Year Local Warranty for replacement of parts provided as per requirements specified.	05
			a. One-year International Warranty for replacement parts provided as per requirements specified.	02
			b. Less than One year Local or International Warranty for replacement parts provided.	00
2	Sample Evaluation	15	a. Goods/ Items/ Quality is as per specifications with exceeding benefits.	15
			b. Goods/ Items/ Quality is as per specifications without additional benefits.	10
			c. Minimum 90% compliance	05
			d. Less than 90% Compliance.	00
3	Financial Capabilities	10		
a	Audit reports	05	a. Audit reports of last consecutive 3 years.	05
			b. Audit reports of last consecutive 2 years.	03
			c. Audit reports of last year.	01
4	After Sale Service	10		
b	Location of office	05	a. Established office within Peshawar.	05
			b. Established office within Khyber Pakhtunkhwa	03
			c. Established office outside Khyber Pakhtunkhwa within Pakistan	01
c	Availability of After Sale Service Facility	05	a. Established mechanical workshop facility within Peshawar.	05
			b. Established mechanical workshop facility within Khyber Pakhtunkhwa	03
			c. Established mechanical workshop facility outside Khyber Pakhtunkhwa within Pakistan.	01

Technical Evaluation Criteria for Category-C (ICT Equipment)																
Sno	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES												
5	Bidder’s / firms Experience	05	a. 05 supply Completion Certificate are provided issued by Semi Government / Government Departments for supply of similar goods will be submitted.	05												
			b. 04 supply Completion Certificate are provided issued by Semi Government / Government Departments for supply of similar goods will be submitted	04												
			c. 03 delivery Completion Certificate are provided issued by Semi Government / Government Departments for supply of similar goods will be submitted	03												
			d. 02 delivery Completion Certificate are provided issued by Semi Government / Government Departments for supply of similar goods will be submitted	02												
			e. 01 delivery Completion Certificate are provided issued by Semi Government / Government Departments for supply of similar goods will be submitted	01												
			f. For No submission "Zero" (0) score will be awarded.	00												
6	Delivery Schedule	10	a. Delivery date confirmed within 45 days from award of contract.	10												
			b. Delivery date confirmed within 60 days from award of contract	08												
			c. For Delivery date beyond 60 days "Zero" (0) score will be awarded. Beyond 60 days the contract will be cancelled as per the conditions of the contract	0												
7	Compliance/Conformity with requirements (Proposed Goods/ items specifications will be compared to the requirements specified here in these (BSD))	10	<table><tr><th>Percentage</th><th>Equivalent Score</th></tr><tr><td>100%</td><td>10.0</td></tr><tr><td>90%</td><td>9.0</td></tr><tr><td>80%</td><td>8.0</td></tr><tr><td>75%</td><td>7.5</td></tr><tr><td>Below 75%</td><td>0</td></tr></table>	Percentage	Equivalent Score	100%	10.0	90%	9.0	80%	8.0	75%	7.5	Below 75%	0	
Percentage	Equivalent Score															
100%	10.0															
90%	9.0															
80%	8.0															
75%	7.5															
Below 75%	0															

Technical Evaluation Criteria for Category-C (ICT Equipment)				
Sno	CATEGORY	Total Score / Marks	CRITERIA FOR SCORE	SCORES
Total		100		

## Evaluation Criteria for the Purchase of Category D Items for FY 2021-2022

Firm Name: \_\_\_\_\_

Bid Reference No: \_\_\_\_\_

Sno	CATEGORY-D	WEIGHT
	<b>Product Performance</b>	
	<b>Conformance to the specification subject to the clearance on Sample test</b>	<b>40</b>
	Total compliance with specification given in statement of Requirement subject to the clearance on sample test by the Inspection Committee. Excellent Sample	40
	Total compliance with specification given in statement of Requirement subject to the clearance on sample test by the Inspection Committee. Good Sample	30
	Total compliance with specification given in statement of Requirement subject to the clearance on sample test by the Inspection Committee. Satisfactory Sample	20
	Sample rejected by inspection committee or low-quality sample provided, the firm will be considered as non-responsive for the quoted item and no marks will be awarded.	0
	<b>Manufacturer's Performance</b>	<b>10</b>
	Valid CE Certificate of the manufacturer for the quoted items.	2
	Valid FDA for the quoted items.	2
	Valid JIS / MHLW of the manufacturer for the quoted items.	2
	Valid ISO 9001 Quality Management Certificate from PNAC accredited body. Certificate from IAF accredited body for imported items.	2
	Valid ISO 14001 Environmental Certificate from PNAC accredited body. (The certificate must be issued to the manufacturer plant in case of local manufacturer). Certificate from IAF accredited body for imported items.	2
	<b>After Sale Past Performance</b>	<b>12</b>

	One mark for each after sale satisfactory performance certificate (verifiable) of the firm on letter head, signed and stamped from the public sector medical institution / hospital for the quoted item. Performance certificate shall be coupled with supply order / purchase order from public sector medical institution.	6
	One mark for each after sale satisfactory performance certificate (verifiable) of the firm on letter head of private medical institution / hospital for the quoted item. The hospital must be recognized from Pakistan Medical Commission (PMC). The satisfactory performance certificate of non-recognized institution from PMC will not be considered. Performance certificate shall be coupled with supply order / purchase order from teaching level private sector medical institution.	6
	<b>Warranty</b>	<b>Mandatory (No Score)</b>
	One year warranty for all items will be provided	
	<b>Firm Financial Strength</b>	
	Annual Sales tax returns for last three years (1 mark for each year).	3
	Annual Income tax returns for last two years (1 mark for each year).	2
	Last three years Audited Balance Sheet Duly attested by Chartered Accountant. Marks will be allocated on the basis revenue annual turnover, 30 M or above will be awarded 3 marks in last 3 years. Rs.20 to Rs.29.9 M will be awarded 2 marks in last 3 years. Less than Rs.20M will be awarded 1 mark.	3
	<b>Office / Workshop facility</b>	
	Availability of office/workshop in Khyber Pakhtunkhwa to be verified with Ownership / Rent Agreement with Owner/ Rent Agreement with Company Name.	
	<b>Total Score</b>	<b>70</b>

## Bidder's Declaration

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	<b>Requirements and Terms and Conditions:</b> I/We have read and fully understand the IFB, including the IFB Information and Data, Schedule of Requirements, the General Conditions of Contract, and any Special Conditions of Contract. I/we confirm that the Bidder agrees to be bound by them.
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm that the Bidder has the necessary capacity, capability, and necessary licenses to fully meet or exceed the Requirements and will be available to deliver throughout the relevant Contract period.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Ethics:</b> In submitting this Bid I/we warrant that the bidder: has not entered into any improper, illegal, collusive or anti-competitive arrangements with any Competitor, has not directly or indirectly approached any representative of the Procuring Entity to lobby or solicit information in relation to the IFB has not attempted to influence, or provide any form of personal inducement, reward or benefit to any representative of the Procuring Entity.
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm to undertake not to engage in proscribed practices, or any other unethical practice, with the Procuring Entity or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the Procuring Entity and I/we have confirm to abide by the code of conduct set by KPPRA Act 2012 and KPPRA Rules 2014 the and acknowledge that it provides the minimum standards expected of suppliers to the Procuring Entity.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Conflict of interest:</b> I/We warrant that the bidder has no actual, potential, or perceived Conflict of Interest in submitting this bid or entering a Contract to deliver the Requirements. Where a Conflict of Interest arises during the bidding process the bidder will report it immediately to the Procuring Entity in writing.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Prohibitions, Sanctions:</b> I/We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium members or subcontractors or suppliers for any part of the contract is not under procurement prohibition by any Public Sector organization, such as debarred, black listed.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Bankruptcy:</b> I/We have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Offer Validity Period:</b> I/We confirm that this Quote, including the price, remains open for acceptance for the validity period specified in these BSD.
<input type="checkbox"/>	<input type="checkbox"/>	I/We understand and recognize that Procuring Entity is not bound to accept any bid received, and we certify that the goods offered in our Quotation are new and unused.
<input type="checkbox"/>	<input type="checkbox"/>	By signing this declaration, the signatory below represents, warrants and agrees that he/she has been authorised by the Organization/s to make this declaration on its/their behalf.

Name \_\_\_\_\_

In the capacity of \_\_\_\_\_

Signed \_\_\_\_\_

Official Stamp/ Seal \_\_\_\_\_

Duly authorized to sign the Bid for and on behalf of \_\_\_\_\_

Date \_\_\_\_\_



**TECHNICAL EVALUATION CRITERIA FOR MACHINERY & EQUIPMENT,  
INSTRUMENTS & OTHER HOSPITAL SUPPLIES, ETC FOR THE YEAR 2021-2022**  
(Maximum Allocable Marks Score = 70 marks)

**Technical Evaluation Criteria for the Purchase of Category-A Equipment for FY 2021-2022**

Firm Name: \_\_\_\_\_

Bid Reference No: \_\_\_\_\_

The bidders will quote the technical bid quotation on the format / form given below.

**Technical Bid Quotation Form / Vis-à-vis Format for Category A&B**

<b>Name of Equipment / Item:</b>	
<b>Model:</b>	
<b>Make:</b>	
<b>Country of Origin:</b>	
<b>Category of equipment / item:</b>	
<b>S. No in SBDs:</b>	
<b>Comparative of Required Specification and Quoted Specification</b>	
<b>Required Specification Project Director (DG DC &amp; PS)</b>	<b>Quoted Specification of the bidder</b>

**Explanation of the quotation form:**

1. All the bidders must submit the quotation for category A and B items on the above form.
2. All the bidders must make a comprehensive sheet with all the required specifications. (Compare all the quoted specification to the required specification).
3. Attached the supported documents i.e Broacher / Catalogue clearly highlighted the specifications mention in the technical quotation.
4. The successful bidders shall provide complete technical manual and operation manual (soft and hard) to the end user.

**BID FORM -I**  
**BID COVER SHEET**  
**Mandatory General Information of Applicant Firm**

**NOTE:** Complete filling of this form along with the provision of all requisite information is mandatory. Missing or not providing any of the requisite information may lead to dis-qualification of the bidder/s from the bidding competition without any correspondence. Any appeal from bidder/s, for whatsoever reasons, will not be entertained in such a case.

Sno	Name of the Bidding Firm:	
1.	<p>Please indicate whether the firm is:</p> <ul style="list-style-type: none"> <li>a. Manufacturer, or</li> <li>b. Importer, or</li> <li>c. Both Manufacturer and importer.</li> <li>d. Authorized Agent/Dealer/Distributor</li> </ul> <p>For various items Offered for this bidding competition.</p>	
2.	<p>Please indicate the category/ies under which the Firm is applying for bidding</p> <ul style="list-style-type: none"> <li>a. Machinery &amp; Equipment</li> <li>b. Instrument/ other laboratory supply.</li> <li>c. others</li> </ul>	
3.	<p>Please provide names, attested copies of CNICs , two recent attested photographs , valid street addresses in Pakistan, all landline and mobile phone numbers of:</p> <ul style="list-style-type: none"> <li>a Owner/Proprietor of the Firm.</li> <li>b Managing Director / CEO of the Firm;</li> <li>c Focal person officially made responsible and authorized by the Firm for day-to-day</li> </ul>	

	<p>official Correspondence with Project Director DG, DC &amp; PS.</p> <p>d (Please provide clear, legible and visible attested photocopies of all the requisite items mentioned items)</p>	
4.	<p>Please provide the following valid information:</p> <p>Regarding applicant Firm: Complete street address of the:</p> <ol style="list-style-type: none"> <li>Head Office</li> <li>Main warehouse; and</li> <li>Valid &amp; working official Landline Phone and</li> <li>Fax Numbers; and</li> <li>Mobile phone numbers of the Focal Person registered against his /her CNIC No. And name; and</li> <li>Valid and functional Email address;</li> <li>Official Website address /es</li> </ol>	
5.	<ol style="list-style-type: none"> <li>Please provide in original the bid security instrument along with the Financial Proposal in the sealed envelope in the form of valid Call Deposit Receipt / Bank Draft / Bank Guarantee of the requisite amount from a scheduled Bank of Pakistan in the name of Project Director Directorate General Drug control &amp; Pharmacy Services, Peshawar. Non- provision of bid Security shall render the bid as non -responsive.</li> <li>However, please provide an affidavit on judicial stamp paper of appropriate face value in the sealed Envelope of the technical proposal to the effect that the bid security of the required amount (without mentioning the amount of bid security) has been inside the sealed envelope of the financial bid to the Project Director Directorate General Drug control &amp; Pharmacy Services, Peshawar.</li> </ol>	
6.	<p>Please provide attested copies of the following Tax related mandatory documents:</p> <ol style="list-style-type: none"> <li>National Tax Number (NTN) of the Firm (FTN) for Income Tax b Last year Income Tax Return of the Firm; and</li> <li>Sales Tax Registration Certificate of the Firm; and Certificate of Professional Tax</li> </ol>	

7.	<p>In case of being manufacturer, the Firm should provide attested copies of the following mandatory documents also:</p> <p>a Duly attested copy of valid Certificate from Chamber of Commerce of the respective country</p>
8	<p>In case of being importers, the Firm should provide attested copies of the following mandatory document/s also:</p> <p>Valid Authorization Certificate for the quoted items, duly attested by the Embassy concerned.</p>

## RETURNABLE CHECKLIST

Sno	Checklist	Yes/No	Page#
(a) General enclosures (firm related)			
1.	Certificate of Company/ Firm registration / Incorporation under the laws of Pakistan.		
2.	Valid Sales Tax Registration certificate of KP-Revenue Authority.		
	Valid Income Tax certificate.		
	Audited Balance Sheet for minimum <sup>2</sup> last 2 years and maximum 3 years.		
	Bank Statement for the Last minimum 2 years and maximum 3 years.		
3.	Acceptance of terms and conditions of tender documents duly signed and stamped.		
4.	Certificate of “Calibration” issued by Government of Pakistan mandated “ <i>Certification and Accreditation body</i> ” for “High Quality” & “Accuracy” of results of the equipment proposed.		
4.	Certificate as bidder is Manufacturer, Authorized Agent, or representative of the original manufacturer.		
7.	Company profile including:		
	Engineering		
	Managerial		
	Technical capabilities		
	Technical Staff List		
	Workshop, Service Center, Machinery, Factory, Ware House addresses.		

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<sup>2</sup> **Minimum:** The word “Minimum” has been used to indicate the most recent documents to be furnished by the bidder. “Recent Years” can be calculated by counting backwards from the day of the publication of the advertisement.

Sno	Checklist	Yes/No	Page#
8	An affidavit on stamp paper of Rs. 50/- submitting following clauses: that		
	i) Only genuine manufacturer's warranty for replacement and not repair of equipment parts shall be done under the warranty.		
	ii) That the firm/bidder is never blacklisted on any grounds whatsoever.		
	iii) That the country of origin of equipment is mentioned clearly and correct along with Brand / Manufacturer's Name.		
	iv) Standard Accessories as a part and parcel of the equipment are clearly mentioned and provided.		
	v) That the Bidder will provide after sales services beyond the period of warranty.		
<b>(b) Technical enclosures for each equipment / ITEM PROPOSE (separate set of documents for each equipment as required part of bidding documents)</b>			
10.	Specification offered for each equipment against floated specifications:		
	Model		
	Brand		
	Make		
	Country of Origin		
	Country Manufactured in. <i>(if different from the origin)</i>		
11.	Agency agreement / Authorization from manufacturer for sale and after sale services duly certified by concerned sanctioning authority.		
12.	Certificates regarding quality of production for conformity with internationally and locally accepted standards.		
13.	Certificates regarding Calibration of equipment assuring the accuracy of results of all the equipment. <i>(Compulsory)</i>		
14.	Clients and Customers list who have been provided same equipment. Or the most relevant equipment in last 3 years.		
15.	Literature / Broachers of product with technical data sheet.		

Sno	Checklist	Yes/No	Page#
16.	List of standard accessories of the equipment and software catalogues.		
17.	At least 3 Repair / After Sale Service Satisfactory Certificate from Semi Government / Government Departments.		
18.	Minimum Two to Three Contracts received in last One Year.		
19.	Minimum Two-Year same business history from the date of authorization.		
20	Bidder must indicate the country of manufacturer of product.		
<b>(C) FINANCIAL OFFER</b>			
1.	Offered rate of items inclusive standard accessories (inclusive of sale tax, if applicable)		
2.	Separate prices for each item and part of the equipment shall be specified.		
3.	For all equipment requiring regular service & maintenance Service level agreement for One (01) year shall be submitted as a separate financial proposal in different envelope.  <i>(Service Level Agreement for each Equipment item must be submitted as a separate financial proposal).</i>		

#### **THE GOVERNING RULES.**

The Bidding procedure shall be governed by the Khyber Pakhtunkhwa Public Procurement of Goods, Works and Services Rules, 2014

## TECHNICAL BID FORM I

**Bidder's Ref No.**

**Letter of Intention**

**Name of the Contract:** {\_\_\_\_\_}

**To:** [\_\_\_\_\_]

Dear Sir,

Having examined the bidding documents, including Addenda Nos. [insert numbers& Date of individual Addendum], the receipt of which is hereby acknowledged, we, the undersigned, offer to supply and deliver the Goods and ancillary services under the above-named Contract in full conformity with the said bidding documents and at the rates/unit prices described in the price schedule provided in Financial Bid or such other sums as may be determined in accordance with the terms and conditions of the Contract.

We undertake, if our Financial Bid is accepted, to deliver the Goods in accordance with the delivery schedule specified in the schedule of requirements.

If our Financial Bid is accepted, we undertake to provide a performance security/guaranty in the form, in the amounts, and within the times specified in the bidding documents.

We agree to abide by this bid, for the Bid Validity Period specified in the Bid Data Sheet and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.

Until the formal final Contract is prepared and executed between us, this bid, together with your written acceptance of the bid and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Financial Bid you may receive. We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in Pakistan.

We confirm that we comply with the eligibility requirements as per ITB clause 21.1 of the bidding documents and has duly provided earnest money @ 2% of the total bid value as per Khyber Pakhtunkhwa Public Procurement of Goods, Works and Services Rules-2014, in the shape of pay order / demand draft / call deposit bearing No.\_\_\_\_\_ dated 24<sup>th</sup>, March, 2021 in the name of Project Director Directorate General Drug Control & Pharmacy Services with our Financial Bid.

*Signed: In the capacity of Duly authorized to sign this bid for and on behalf of Bidder Name:.*

*Signature*



## FINANCIAL BID FORM (PRICE SCHEDULE)

Note: This form must cover all the costs associated to deliver the goods and services on such as, on Delivered Duty Paid (DDP) basis. The respective costs of each goods & services must be separately provided in the following manner.

Item	Description	Quantity	Rate (Pak. Rs.) DDP Basis	
			Unit Rate	Total
<b>TOTAL (DDP Price) (in figures &amp; words)</b>				

Official Stamp: -----

**PERFORMANCE SECURITY FORM**

**To: Khyber Pakhtunkhwa Food Safety & Halal Food Authority**

WHEREAS [name of Supplier] (hereinafter called "the Supplier") has undertaken, in pursuance of Contract No. [reference number of the contract] dated \_\_\_\_\_ 20\_\_\_\_ to supply [description of goods and services] (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a bank guarantee by a reputable bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of [amount of the guarantee in words and figures], and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limits of [amount of guarantee] as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

Signature and seal of the Guarantors

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[name of bank or financial institution]

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[Address]

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[date]

## **Manufacturer's Authorization Form**

[See Clause 13.3 (a) of the Instructions to Bidders.]

To: **Directorate General**

WHEREAS *[name of the Manufacturer]* who are established and reputable manufacturers of *[name and/or description of the goods]* having factories at *[address of factory]*

do hereby authorize *[name and address of Agent]* to submit a bid, and subsequently negotiate and sign the Contract with you against IFB No. *[reference of the Invitation to Bid]* for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

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*[signature for and on behalf of Manufacturer]*

**Note: This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.**

## INTEGRITY PACT

Declaration Of Fees, Commission and Brokerage Etc. Payable by the Suppliers of Goods, Services & Works In Contracts Worth Rs. 10.00 Million Or More

Contract No. \_\_\_\_\_ Dated \_\_\_\_\_ Contract Value: *[To be filled in at the time of signing of Contract]* Contract Title: \_\_\_\_\_

[name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Khyber Pakhtunkhwa (Government of Khyber Pakhtunkhwa) or any administrative subdivision or Entity thereof or any other entity owned or controlled by Government of Khyber Pakhtunkhwa through any corrupt business practice.

Without limiting the generality of the foregoing, [name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from Government of Khyber Pakhtunkhwa, except that which has been expressly declared pursuant hereto.

[name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with Government of Khyber Pakhtunkhwa and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[name of Supplier] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to Government of Khyber Pakhtunkhwa under any law, contract or other instrument, be voidable at the option of Government of Khyber Pakhtunkhwa.

Notwithstanding any rights and remedies exercised by Government of Khyber Pakhtunkhwa in this regard, [name of Supplier] agrees to indemnify Government of Khyber Pakhtunkhwa for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to Government of Khyber Pakhtunkhwa in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from Government of Khyber Pakhtunkhwa.

Name of Buyer: .....

Name of Seller/Supplier: .....

Signature: .....[Seal]

Signature: .....{Seal

